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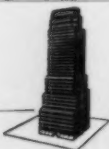
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THE AMERICAN PSYCHOLOGIST

Journal of the American Psychological Association, Inc.

Volume 12

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The deadline for receipt of abstracts and summaries of papers and symposia for the 1958 Annual Convention is April 10, 1958. Details will be in the "Call for Papers and Symposia" in the January issue.

Volume title page and the Indices for Volume 12 appear at the end of this issue.

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IS CLINICAL PSYCHOLOGY A SCIENCE?

CARLTON W. BERENDA

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THE rather hackneyed question raised in the above title is conceived within a broad framework and within a context of other questions and various accusations. There are some who have said or implied that psychology as a whole is not much of a science and that clinical psychology and the theories of personality dynamics and psychoanalysis are a combination of mere practical techniques and obscure or poetic speculations. Clinical work in psychology has been looked upon as an art rather than as a science: one has a "feeling" for the work, or one does not, but there are no scientific rules or laws by which one can guide one's self in this area. Psychological tests and measurements are sometimes regarded as the really scientific part of this work, because some numbers or statistical figures are obtained; but the rest of the field is often dismissed as vague, intuitive, metaphysical meanderings and incantations, a survival of the *Malleus Maleficarum*¹ of the Dark Ages.

Lurking behind the foregoing remarks are presumably some other presuppositions concerning the nature of a "real science"; and one may suppose that the guide and standard of such a science is modern physics—a collection of precise, quantitative, logico-deductive, verifiable natural laws.

The trouble with this standard often lies in a misconception on the part of those who uphold it; their insight into modern physics is frequently colored by implicit metaphysical concepts that date back to Copernicus, Galileo, Kepler, Descartes, and Newton. This misconception must apparently be deeply entrenched in our culture, since it has been explicitly recognized (in one form) even in a famous child's book (3):

Grown-ups love figures. When you tell them that you have made a new friend, they never ask you any questions about essential matters. They never say to you, "What does his voice sound like? What games does he love best? Does he collect butterflies?" Instead, they demand: "How old is he?

How many brothers has he? How much does he weigh? How much money does his father make?" Only from these figures do they think they have learned anything about him. . . . But certainly, for us who understand life, figures are a matter of indifference.

The roots of this sort of "number magic" can be traced back 2,500 years ago to Pythagoras, thence through Plato, and the mathematicians and astronomers, up to Copernicus. The conviction that ultimate reality is to be understood in terms of numbers, geometrical figures, and simple ratios and proportions stems from this ancient tradition and culminates in Galileo and Descartes. The real world becomes the quantitative world of mathematics; the "primary qualities" of the world are measurable: space, time, motion, and mass; while the merely "secondary qualities" are: colors, odors, tastes, sounds, etc.; and the "tertiary qualities" are: thoughts, wishes, emotions, moral and aesthetic value judgements, etc. The secondary and tertiary qualities are in the human mind that is somehow locked up in the brain and body. The human brain and body can be understood in terms of the primary qualities and are therefore properly a part of science, the study of ultimate (mathematical) reality; but the other qualities are in the soul of man and are to be left to the Church. Such are the conceptions more or less explicit in the views of Galileo and Descartes (2). And such is the Bifurcation of Nature that Descartes brought to fruition when he split the world into *res extensa* (the physical world of geometrical mathematics) and *res cogitans* (the human mind of sensations, feelings, wishes, ideas, etc.).

After Newton's success, there was gradually impressed upon men's thinking a world picture in which man was a small cog in a big cosmic machine that ran according to fixed and inevitable natural laws. The real, objective world was impersonal, mathematical, exact, and under strict causal law in all of its behavior. Similarly, the human body and its behavior were regarded as merely a more complicated machine. In the nineteenth century, statistical mechanics, electrodynamics, chemistry, and

¹ A book on witchcraft and the detection of witches—that should be read by clinicians. See also J. Michelet's *Satanism and Witchcraft*. As we shall see, such literature is of value to clinicians.

biological evolution under fixed natural laws were concepts added to this world picture; but, from a broader viewpoint, the general notion of man and the universe remained essentially the same. Watsonian behaviorism, early in the twentieth century, was the outcome of this world picture: Man, the electrochemical reflex machine.

Along with this world picture and theory of man, goes a methodological viewpoint: to understand this world, one must be like unto it—objective, impersonal, mathematical, precise. To discover, in detail, the natural laws of human behavior, one also must be committed to these procedures. The laws are there to be found; go thou and find them! Such is the way of the scientist and good psychologist.

It should be emphasized, at this point, that it is not the intention of the author to discard scientific method, and certainly not on the ground that its origins are to be found partly in the myth of number magic. To trace ideas historically to myths is not logically to refute them; it is simply to become more aware of the interesting fact that science, like religion, philosophy, and other such conceptual activities, are *human activities*, replete with implicit metaphysical commitments—that we live and think creatively by symbols and theories and that the established theories of today may be the “myths” of tomorrow. And in the specific world picture that we have just outlined, there is the further realization that man, as creative, imaginative, and emotional, has been read out of the world picture, to be conceptually explained away in terms (created by us!) of strict, objective, quantitative, causal mechanisms of our bodily behavior.

It has been the physical science of our century that has given its own revolutionary refutation to the foregoing world view. We are not referring so much to such ideas as Heisenberg's Indeterminacy Principle in Quantum Theory—the refutation of classical mechanical causality in atomic physics—but to something much more fundamental and far-reaching. Modern physics has broken with the old world view in two ways: (a) it questions the possibility of any imaginable pictures or models of the so-called real world of atoms, etc.; (b) it questions the nature and status of the so-called natural physical laws or equations.

Concerning Item *a*, modern quantum theory, as well as relativity theory, have passed far beyond the possibility of ordinary mechanical models to represent their basic equations or laws. Especially in

quantum theory, who can claim to visualize the “wave-particles” as given in the equations for light (photons), electrons, protons, neutrons, etc.? It has now become apparent to the theoretical physicist that his science is no longer engaged in the business of providing a picture revealing the ultimate structure of reality (4, p. 10). Rather his abstract mathematical equations are formulated (not “discovered”) by the creative imagination of geniuses who are engaged in the human *attempt* to provide some logico-deductive system that most simply and consistently organizes some describable features of our observed world of *common experience* (not a world of colorless, mechanistic stuff).

And on Item *b*: the natural laws are no longer regarded as unique, unequivocal, absolutely true descriptions of some ultimate reality existing “objectively”; rather, a new view has come into being among the physicists. It has been found possible to provide *more than one* verified theory of a given subject matter: Dirac has given us one theory of the positron (an electron with positive charge), while Feynman has given us another. The basic equations of *both* men have been experimentally confirmed! This seems impossible, unless one gives up the preconception that physics is engaged in revealing the ultimate nature of some “real objective world” behind the world of phenomena or common experiences. Moreover, Feynman has proceeded to prove that his theory and Dirac's are “equivalent”—that is, one theory (a set of basic equations) can be “translated” into the other, *in toto*—much like German into English. In other words, more than one theory can be verified in the same area of inquiry, and either or both theories may be used interchangeably, as suits the convenience of the physicist. The theories do not give us pictures or laws of an absolute reality, but (as John Dewey emphasized) are merely *intellectual tools or instruments created* by brilliant minds to deal more or less adequately with some selected aspects of observable phenomena. To quote two modern physicists (9, p. 528):

How can we know that this world of ours is ultimately explorable? Is there a unique system of physical explanation? If there were, and the physicist were slowly learning it, his occupation would be that of a photographer who takes an enormous number of pictures in studying an object. If, however, there is no certainty about these questions, then his work is not photography; it is artistic creation. It seems that past experiences favor the latter alternative.

It is against the background of the previous remarks that we can seek to answer our leading question about clinical psychology as a science. A scientific system need not try to provide us with a *unique* theory of phenomena, nor need its abstract concepts be visualizable in terms of concrete or mechanistic imagery, nor need the theory be quantitative. More than one theory of personality or of therapy could be used by the clinician, and possibly the abstract terminology of various theories (all "verified") could be shown to be equivalent. Which of such theories the clinician uses may be a matter of personal preference, congenial to his own temperament. We can only seek to construct some self-consistent system of abstractions or concepts that, as simply as possible, logically organizes a given area of phenomena in the field of human behavior. More than one such system is possible.

The old bifurcation between science and art, between objective mechanical reality and subjective creative symbolism is no longer as obvious as it once seemed. To be "objective" is also to have objectives! Even man as scientist is goal directed as well as goal creating or selecting—and *long range ideal* goals at that (e.g., the ideal objective of a science of man, 1).

In a field as rich and varied as human behavior, it behooves us to become more thoroughly acquainted with our subject matter so that inspiration for formulating abstract concepts and for creative theorizing will be well-grounded in concrete experiences and so that "verification" of such theories can lose some of its present vagueness. A multiplicity of "competing" but equally simple verified theories is not in itself a scientific sin. And in the qualitatively rich area of clinical psychology, *different* abstract concepts and assumptions formulated into *various* verifiable theories are to be expected, and even encouraged. Science is a matter of *degree* of systematic logical organization of phenomena; clinical psychology is a science to a degree that will rise in proportion to such systematization; but the hope for such a rise must depend upon a freedom of creative thinking embedded in the warm and vital matrix of pervasive, sympathetic, and qualitative experiences in the clinical field.²

² The attempt to "reduce" clinical psychology to neurophysiology or to biophysics or, in general, the attempt to "reduce" all the sciences to physics is a *program* in unifying the sciences—a pragmatic-aesthetic program of *simplification* of system. Any hope for some realization of such a pro-

We come now to the crux of the problem for the clinical psychologist. How may one best achieve this "embedding" in the warm matrix of qualitative clinical experiences; and how may one systematize such experiences into some logically organized structure? First, we must honestly face a peculiar dilemma that immediately confronts us: When the clinician is engaged most deeply and effectively in the therapeutic situation, he should be empathizing in free association with his client. A compassionate warmth must pervade the therapeutic relation so far as the analyst is concerned. During these moments, the taking of a note, or the writing of a report in a brief sentence, will break the therapeutic relationship or at least reduce its intimacy and therapeutic effectiveness. Wire recordings can certainly help us here, so that, after the analytic session, the analyst can get back to some of his raw data without reducing his effectiveness as a therapist. However, even with the emotionally colder wire recordings, the analyst is not always able to shift from the remaining feeling tone of that data to a discursive logical inquiry into systematic formulation of theory, so essential for a mature science. The transition from raw feeling tone or empirical data to logical construction is always difficult, but is especially so in clinical psychology. Resort to *memory* of such feeling tones is necessarily limited by the fact that, in free association, logical coherence of ideas is least present: we recall least when we have done our best free associating.

Behind the foregoing problem is a somewhat deeper one: the personality of the clinician. Those clinicians who are best able to establish a warm clinical relation of feeling tones and who may report such feelings and emotions to their students often find it almost impossible to go much beyond such reporting. Discursive presentation seems to destroy for them what they are trying to report. I was once (about 10 years ago) confronted with a very vivid instance of this sort. I had been invited to attend an advanced class in clinical psychology. The instructor of the class was attempting to give reports of certain clinical cases that he was engaged in at the time. While many of his students seemed to be getting what he was attempting to convey, my own

gram lies in a careful development (with an eye on each) of the various sciences in their own specific areas, prior to the attempted "reduction." Moreover, *more than one* such reduction is possible; more than one unification of the sciences could be achieved.

reaction to these reports was one of almost complete bewilderment, not as to technical terminology since none was used, but as to the logical incoherence of the reports—the content made no systematic sense. And my own strongly intellectualistic attitude blocked me almost completely from the feeling tone that the instructor was attempting to convey. I am now reasonably certain that my own personality, at that time, was significantly operative in preventing me from “getting with” the presentation of the raw data. Personality does make a real difference in these situations.

The question arises as to what may be done to effect a transition from the feeling tone of the raw clinical data to the formulation of a hypothetical deductive systematization of that data so necessary for a science of clinical psychology. The answer would appear to lie in the recognition of the fore-mentioned personality differences of workers in this field, and in the *co-operative* use of all such workers in establishing a sort of overlapping continuum of personalities, ranging from those most therapeutically empathetic to those most adept at logical and systematic presentation—such persons working together, as far as possible and with conscious awareness of this problem, in the common enterprise of constructing an empirically verified science of clinical psychology. Sometimes, one person may embody in his own personality a rather wide range of the above mentioned continuum. This is, perhaps, most likely to be found among those who themselves have gone through analysis.

No solution of this problem can be perfect or complete. As mentioned earlier, all verbal and categorical abstractions of concrete experimental data must do some injustice to the richness of the raw empirical material. But the loss is compensated by the gain of a logical and systematic organization and control of the selected data at the predictive and manipulative level. And such is science.³ The source of the scientific hypotheses that will serve to make logically coherent the data of clinical psychology lies, as always, in the creative genius of men of the caliber of Freud or Fromm. There are no rules for producing the brilliant ideas of scientific theories; but, unless one is steeped in the raw empirical data, the scientific value of such ideas is likely to be very limited.

³ The advancement of theoretical scientific systems will help to provide ideas for new and more fruitful techniques in the therapeutic situation.

It is therefore well to emphasize and point up the fact that there are sources of empirical data for the clinician other than merely in the clinical testing and therapeutic situations. Wherever human beings have been engaged in *expressive symbolic activities*, there one may find such data. In certain literature, theatre, poetry, myths, folk lore, cults, “fairy tales,” music, dancing, rituals, painting, sculpturing, architecture, etc., one may obtain valuable insights into the depths of man's emotive functions.⁴ The Bible is, of course, an extremely important source of such insights. In all such areas, what is to be sought are the roots of feelings and motives operating in the symbolic activity (5, 7, 8). Graduate seminars in these areas would be useful for clinical psychologists, especially if their undergraduate studies have had a broad liberal arts content. Moreover, the ability to interpret various “projective” tests (e.g., the Rorschach) will be much enhanced by such studies.

Especially noteworthy is a very rich field of raw material for the clinician in the writings of the great mystics and religions of India. For many centuries, various cults, such as those engaged in the practice of Yoga, have been devoutly exploring what we might call the psychosomatic functions of man, as well as investigating the depths of the psyche. Their approach differs from ours in that we came at these questions from a medical and therapeutic direction, whereas theirs essentially originated in the religious values common to their culture. Their writings can supply a wealth of raw material concerning depth psychology, providing the reader is well versed in the terminology and metaphysics of this literature. Unfortunately, the “meeting of East and West” has not yet gone very far. But there seems to have been some genuine progress made in this direction. Evelyn Underhill's classic on *Mysticism* is one such work. Certain recent writings of Aldous Huxley (both in novels and in essays or compilations) have something to offer along these lines. Another work of real interest is the recent collection by Dorothy Phillips, *The Choice is Always Ours*. Perhaps what is most significant is the work of the oriental, J. Krishnamurti, who has recently brought eastern thought into a form more suitable for western readers in his works, *Education and the Significance of Life* and *The First and Last Freedom*. It is the present author's belief that such

⁴ See footnote 1.

literature will provide a very rich source of relevant raw material and theoretical insights for the clinician.

As a concluding and somewhat paradoxical note, we remark that a science of personal human behavior seems more feasible in the domain of deviant (neurotic, psychotic) behavior than in mentally healthy behavior (6). One may *predict* and logically systematize compulsive (neurotic) behavior, whereas the mentally healthy man is more spontaneous, free, and creative in his personal behavior—hence, in detail, less predictable or logically organizable (10). A science of *clinical* psychology seems more realizable (as to detailed prediction) than a science of the general healthy personality!

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PSYCHOLOGY IN POLAND

FROM M. CHOYNOWSKI'S "ON THE AWAKENING OF POLISH PSYCHOLOGY"

Excerpted and Translated by

ROBERT B. ZAJONC

University of Michigan

An article¹ has recently appeared in an important Polish journal in which a well-known psychologist emphatically appeals for a change of the official attitude toward psychology in Poland. The author, Mieczyslaw Choynowski, presents a frank picture of the status psychology has enjoyed there for the past several years and proposes some corrective actions. The appearance of the article itself is significant in indicating the changes which, as a result of the recent political developments, must have occurred in Poland in the area of scientific freedom and in suggesting trends which are likely to emerge in Polish psychology. Choynowski states that:

DURING recent years Polish psychology has been the object of growing concern to psychologists. . . . Its fate . . . has been determined by individuals whose activity consisted not so much in supporting as in destroying psychology. Psychology has been eliminated from intermediate education, and in all universities, except for Warsaw and Poznan, it was relegated to a subservient position. Psychological clinics, child guidance centers, and vocational guidance centers . . . have been closed. Psychological laboratories in industry were discontinued. In psychiatric hospitals and mental health centers psychologists were assigned the innocuous function of the so-called "social-psychiatric assistants." *Kwartalnik Psychologiczny* [Psychological Quarterly] and *Psychologia Wychowawcza* [Educational Psychology] were reinstated after the war and combined as the *Przegląd Psychologiczny* [Psychological Review], which became the official organ of the Polish Psychological Association. However, only one issue of this journal appeared since the beginning of 1952. Other than a few translations from the Soviet literature,

¹ Choynowski, M. O wyjście z zastoju w psychologii polskiej. [On the awakening of Polish psychology.] *Kultura i Społeczeństwo* [Culture and Society], 1957, 1, No. 1.

no psychological books have appeared for the past five years. The university textbook in psychology, which has been in preparation as a collective work for several years, has not been published to date.

The profession "psychologist" has not been included in the census of occupations issued by the National Commission for Economic Planning. The *Biuletyn Ośrodka Bibliografii i Dokumentacji Naukowej Polskiej Akademii Nauk* [Bulletin of the Bibliography and Documentation Center of the Polish Academy of Science] does not contain a section on psychology, and the few psychological books and journals received by the agencies of the academy are listed under "Philosophy," "Education," or "Physiology, anatomy, and morphology." One can find references to psychology in the *Przewodnik Bibliograficzny* [Bibliographic Guide] issued by the National Library, but only in the section on philosophy. We have been almost completely cut off from the Western psychological literature, and prevented from attending international conventions and congresses. . . .

This state of affairs has been attributed by some psychologists and by the agencies of the party and the government to the methodological crisis in psychology, to its alleged idealism . . . and to the need for theoretical underpinnings based on Marxism and on Pavlov's theory of higher neural functions.

The inspection of psychiatry by the Soviet Professor Snezhnevski and by the famous psychiatric conference in Tworki in September 1952 decided the fate of clinical psychologists employed in mental health centers and hospitals. . . . If some psychologists were retained, they worked (with some exceptions) not as psychologists but as "social-psychiatric assistants," educators, or workers with obscure titles and unspecified duties. Aviation and the railroads constituted exceptions, because, apparently, when the lives of people and millions of *zlotys* are

at stake, the methods of psychological testing for occupational proficiency could not be rejected.

It is not surprising then that there is a growing conviction among a vast majority of Polish psychologists that steps must be taken to correct the present situation, which is harmful to Polish science and economy. The failures of Lepeshinska and Lysenko, the retreat of Pavlovism from its tenuously extrapolated positions, disappearance of schematism and dogmatism from life and science, increasing cultural contacts with the West, bankruptcy of the socialist realism in literature and arts, bold and honest discussion in the humanities, and finally, a general political relaxation—all these allow us to conclude that the time has come when psychology can at last be rescued from its present state. It appears that some thought has already been given to the establishment of a Psychological Institute of the Polish Academy of Science.

Chojnowski continues by attacking the arguments which have previously succeeded in eliminating psychology from the scope of Polish scientific endeavors.

1. I am convinced that the notion that psychology is an ideological science must be completely revised. Contemporary psychology is not a philosophical science, nor a pedagogical science, nor even a social science in the Marxist sense. Psychology is not an ideological science for the same reason that mathematics, chemistry, or zoology are not ideological sciences. Work in psychology can be performed on the basis of findings obtained elsewhere, and knowledge can grow independently of philosophical views, religious beliefs, political opinions, class membership, racial background, and national origin. This does not mean that all of us should accept all theories. Rather it means that there exists a vast storehouse of facts which constitute public and objective knowledge. The greater in science the body of empirical material, the less influence have the so-called "trends." Thus in contemporary psychology such trends are found infrequently. "During the 1930's *isms* pretty well dropped out of psychology. What was good in all the schools is now simply part of psychology" writes Boring in *Foundations of Psychology* (1948). Thus, considering psychology as an ideological science, as well as linking it to pedagogy and philosophy, hampers its development and distorts its true character. The problems and applications of psychology concern pedagogy only to a very small extent. The "mind-body" or "ideal-

ism-materialism" problem does not belong to psychology but to philosophy. In any event, modern texts of scientific psychology do not deal with it. At the most, they include it as an item relevant to the philosophical past of psychology. But *we* must advance with the scientific *avant-garde* rather than drag ourselves behind the rear echelons of philosophy.

2. Everybody is today aware that we cannot restrict psychology to the so-called Pavlovian psychology. Above all, Pavlovism, which appears in Poland in its orthodox form, does not constitute a sufficient theoretical basis, mainly because it contains many doubtful assumptions and contradictions, and because it leaves many facts unexplained. It is for these reasons that for some time now, here and in the Soviet Union, one does not speak of psychology as based on Pavlov's "Science" but on the physiology of higher neural functions. Such formulation leads to fewer doubts, but it has to be recalled that man consists not only of a brain and that psychology cannot be based on the physiology of central processes alone. . . . The need for physiological roots in psychology requires no justification today. . . . On the other hand, there exist vast numbers of psychological problems which have nothing to do with it [physiology], just as many biological problems have nothing to do with the physicochemical basis of life.

3. We cannot spare efforts in making up for our immeasurable deficits which, because of war and the postwar decade, divide us from psychology in the world at large. To all of us who are versed in psychology it is clear that those who have written about the so-called bourgeois psychology are either ignorant or dishonest. As Lysenko attacked the genetics which preceded him by a good many years, or which he presented in a distorted mirror, some critics of Western psychology were fighting trends long past or views existing only in their imagination. Where is the alleged idealism of the contemporary scientific psychology? Who maintains that "human nature is invariant"; who believes in "invariant inherited traits and invariant environment" and "mutual independence of events"; who considers personality as "the sum of independent dispositions"? The protagonists of the pseudo-Marxist psychology, bringing no credit to Marxism and to psychology, attempted to persuade us and their own students that such views are representative of Western psychology. How can Professor Tomaszewski insist

that Western psychology "views man as a toy of blind forces" (*Zasady psychologii w ZSRR [Principles of Psychology in USSR]*, page 77)? Where are the American psychologists who "make man's motor responses the sole object of psychology, who ignore the need for specific psychological methods, and who see no need for anything more than a combination of physical, chemical, physiological, and mathematical methods" (page 68)?

Our ignorance of Western psychology is not the exclusive fault of our psychologists. It is the fault of our financial—and not only financial—policy which cuts us off from foreign literature. A few publications reach our libraries, but they lie there mostly unread. How many psychologists in Poland read the *Psychological Abstracts* which summarizes yearly about 10,000 books and works in psychology the world over, and without which one is at a loss in any branch of psychology? How many of us read such important journals as the *Psychological Bulletin* or *L'Année Psychologique*, let alone dozens of other psychological publications of importance?

The acquaintance with Western literature ceased to be an obligation . . . and was not required of students. As a matter of fact, knowing Western literature was frowned upon because then the student would be less likely to believe all he was told. . . .

4. The case of the so-called methodological crisis in psychology also requires thorough discussion. . . . This crisis is unknown in Western psychology, which is enjoying a fertile growth in the U. S., England, France, Italy, Scandinavia, and in other countries. It emerged in Poland from the judgment that the "old" methods are bad and that new ones are needed. This judgment was based not on experimental or theoretical work . . . but on the famous resolution of the Central Committee of the Soviet Communist Party against the so-called pedologists, or educational psychologists. . . . (According to *Enciklopedičeskij Slovar [Encyclopedic Dictionary]* "pedology" is a reactionary bourgeois science of children, aiming at the discovery of specific capacities and rights of privileged classes and 'higher races' in comparison with those of underprivileged classes and 'lower races.'") This injunction unconditionally censured all testing methods. Allegedly, it was based on long experience of psychologists and educators, yet no experimental results were to be found in it. Other attacks have also paid little heed to such evidence. "Pedologists" may have caused a good deal of damage in the Soviet Union. . . . But

we are not concerned with "pedologists". . . . There were no pedologists in Poland, since no one here has shown by means of tests that the privileged classes and "higher races" have some special abilities. Besides, pedology was a science concerned with the child, while the scope of testing methods is incomparably wider.

The author discusses at length the scope and application of testing methods, giving many examples from American literature. He ends the article by showing the role psychology can play in various spheres of life and suggests a series of actions to be taken if psychology in Poland is to be rehabilitated.

The above review of problems of undeniable social significance . . . leads to the question of whether we have adequately prepared personnel for such tasks. The answer must be: No. Some of the branches which I have enumerated have no tradition in Poland, in others we have at best a few pre-war specialists. We must note, however, that not only today, but also before the war, our psychology was behind the West in many areas. The majority of methods of modern applied psychology is based on advanced mathematical statistics, which among us is almost unknown. The present program of studies has torn our youth away from psychology in the world at large and from life. I can easily risk the conclusion that to an overwhelming majority of our young psychologists the above problems and methodologies are entirely new. Being subjected to a narrow and biased training, ignorant of testing and statistical methods, misguided by a false picture of Western psychology, unable to profit from foreign literature, they would certainly be helpless when faced with any problem of applied psychology.

The immediate introduction of psychology to industry, health service, or education involves, therefore, a considerable danger because of lack of tools, well worked-out tests, and trained personnel. The society has indeed the right to judge whether a psychologist with an MA or a PhD is sufficiently prepared to practice his profession. . . . But the society does *not* know that . . . a postwar degree in psychology is inadequate for the undertaking of independent work, that people holding these degrees were misled as to the perspectives, methods, and potentialities of contemporary psychology. . . .

The crisis in Polish psychology and the deficit dividing us from science in the world at large call for many changes. They are:

1. The elimination from psychology of ideological

assumptions which followed from misunderstanding and ignorance of contemporary psychology and which arrest its development.

2. The re-education of existing personnel and the rapid training of young cadres in a framework of a revamped and modernized program of studies. In this connection we could bring to Poland, even for one year, Polish psychologists working abroad and perhaps invite foreign psychologists as consultants.

3. Developing contacts with Western psychology, supplying psychological institutes and university libraries with books and periodicals, and sending abroad our psychologists.

4. The creation of a psychological journal which, besides publishing works by Polish authors, would report exhaustively and quickly the psychological developments in the world at large, bring reviews and translations, critiques and summaries, and general information about current events.

5. Speedy translation of some of the best introductory psychological texts in various fields, such as Hilgard's general introduction to psychology, Morgan's physiological psychology, applied psychology

by Burt or Poffenberger, Cronbach's educational psychology, social psychology by Krech and Crutchfield, clinical psychology by Pennington and Berg, Anastasi's manual of testing methods, and Guilford's or Edwards' handbook of statistical methods.

6. The establishment of a Psychological Institute of the Polish Academy of Science in which laboratories would be set up in theoretical . . . as well as in applied psychology. . . .

7. The education of party and government officials and the society about the role which a well-established psychology can and should perform in government, education, medicine, business and industry, social pathology, and many other fields.

These tasks cannot wait. When other sciences have been growing in Poland, psychology was brought to an almost complete halt. There is in Poland no other science about whose potentialities less is known. It is time for this prodigious and many-sided science of fundamental significance for other sciences and for many spheres of life . . . to assume the place which is due to it in the culture and economy of our country.

INTERNSHIPS FOR DOCTORAL TRAINING IN CLINICAL PSYCHOLOGY APPROVED BY THE AMERICAN PSYCHOLOGICAL ASSOCIATION

November 1, 1957

ON the recommendation of the Committee on Evaluation, the Education and Training Board with the concurrence of the Board of Directors of the American Psychological Association has approved the internships for doctoral training in clinical psychology which are offered by the agencies listed below. These internships meet at least the minimum standards stated in the *American Psychologist* for November, 1950, Vol. 5, pp. 594-609. All these agencies provide supervised experience in the three activities of diagnostic work, psychotherapy, and research unless otherwise stated. The committee used the criterion that thorough practicum training in at least two of these activities was a minimum standard for approval.

This list is complete for those agencies which had been evaluated by November 1, 1957. Other agencies are being rapidly improved, so that additions

to this list are expected when it is published next year.

The list below includes only independent agencies, that is, those agencies accepting interns from more than one university. Captive agencies, that is, those agencies in which practicum training is available only to students of a particular university, are not listed. The practicum training facilities of the Veterans Administration are yet to be evaluated and therefore are not included.

The list is alphabetical by states and cities. Following the name and address of an agency, the information about the internship and the nature of the experience it provides is given in the following order: age level of patients, types of disorders of patients, length and beginning date of appointment, amount of stipend, and any unusual additional benefits. Most of the appointments are for one year, but this includes some time for sick and vacation leave.

INDEPENDENT AGENCIES WITH APPROVED INTERNSHIPS

California

LOS ANGELES PSYCHIATRIC SERVICE, 8770 W. Whitworth Dr., Los Angeles 35. Ages 18-45; all disorders; outpatients. Appointment 1 year, beginning Sept. 15; stipend \$1200-1400 for half-time work. (Joint program with Reiss-Davis Clinic)

REISS-DAVIS CLINIC FOR CHILD GUIDANCE, 715 N. Fairfax Ave., Los Angeles 46. Ages 4-17 and parents; all disorders; outpatients. Appointment 1 year, beginning Sept. 10; stipend \$2400 for third-year, \$2800 for fourth-year student. (Joint program with Los Angeles Psychiatric Service)

METROPOLITAN STATE HOSPITAL, Norwalk. Adults; all disorders; inpatients and outpatients. Appointment 9 months, beginning June-Sept.; stipend of USPHS fellowships plus room and board.

LANGLEY PORTER NEUROPSYCHIATRIC INSTITUTE, Dept. of Psychiatry, University of California School of Medicine, Parnassus and First Aves., San Francisco. All ages; all disorders; inpatients and outpatients. Appointment 1 year, beginning July 1-Sept. 1; stipend \$2400 for full-time, \$1902 for half-time work.

MOUNT ZION PSYCHIATRIC CLINIC, 2255 Post St., San Francisco 15. All ages; all disorders; outpatients. Appointment 1-2 years, beginning July or Sept.; stipend \$2800-3400.

Colorado

UNIVERSITY OF COLORADO SCHOOL OF MEDICINE, 4200 E. 9th Ave., Denver. All ages, including infants; all disorders; inpatients and outpatients. Appointment 1 year, beginning July 1 or Sept. 1; stipend \$2400 for third-year, \$2800 for fourth-year student, \$3400 for postdoctoral intern.

Connecticut

INSTITUTE OF LIVING, 200 Retreat Ave., Hartford 2. All ages; all disorders; inpatients and outpatients. Appointment 1 year, beginning July or February; stipend \$2400; free duty lunch, maintenance available at \$75 monthly.

PSYCHOLOGICAL LABORATORIES, CONNECTICUT STATE HOSPITAL, Middletown. All ages; all disorders; inpatients and outpatients. Appointment 1 year, beginning

Sept.; stipend \$2400-3360; complete maintenance free on USPHS stipend, complete maintenance at \$136 per year on hospital stipend.

NORWICH STATE HOSPITAL, Norwich. All ages; inpatients and outpatients. Appointment 1 year, beginning Sept. 15; stipend \$2460-3320; complete maintenance available for single interns at \$316 per year.

District of Columbia

CHILD CENTER, CATHOLIC UNIVERSITY OF AMERICA, 4th and Michigan Aves., N.E., Washington 17. All ages, primarily children; behavior problems, psychoneurotic; inpatients and outpatients. Appointment 11 months, beginning Sept. 15; stipend \$1650.

ST. ELIZABETH'S HOSPITAL, Washington 20. All ages; but primarily adult (may have exchange period in university child study clinic if interested); all disorders; inpatients. Appointment 1 year, beginning July 1; stipend \$2400-2600 for predoctoral, \$3100 for postdoctoral interns; rooms for single persons at \$10 per month.

Illinois

NEUROPSYCHIATRIC INSTITUTE, UNIVERSITY OF ILLINOIS MEDICAL SCHOOL, 912 S. Wood St., Chicago 12. All ages; all disorders; inpatients and outpatients. Appointment 1 year, beginning Sept. 1; stipend \$2400-2800, or residency at \$1500 plus meals and laundry.

INSTITUTE FOR JUVENILE RESEARCH, 907 S. Wolcott Ave., Chicago 12. Infancy to 18 years and parents; emotional and behavior problems; inpatients and outpatients. Appointment 1 year, beginning Sept. 1; stipend \$2250-3600.

INSTITUTE FOR PSYCHOSOMATIC AND PSYCHIATRIC RESEARCH AND TRAINING, MICHAEL REESE HOSPITAL, Chicago 16. All ages; all disorders; inpatients and outpatients. Appointment 1 year, beginning Oct. 1; stipend \$1500; free meals.

NORTHWESTERN UNIVERSITY MEDICAL SCHOOL, 303 E. Chicago Ave., Chicago. All ages including infants; all disorders; inpatients and outpatients. Appointment 1 year, beginning Sept. 1; stipend \$2400 tax exempt.

Indiana

LARUE D. CARTER MEMORIAL HOSPITAL, 1315 W. 10th St., Indianapolis 7. All ages; acute psychotic, severe neurotic; inpatients and outpatients. Appointment 1 year, beginning Sept. 1; stipend \$3300; full maintenance for single interns at \$25 per month, or meals at \$5 per month.

Iowa

DIVISION OF PSYCHOLOGY, DEPARTMENT OF PSYCHIATRY, STATE UNIVERSITY OF IOWA, Iowa City. All ages; all disorders; inpatients and outpatients. Appointment

1 year, beginning July 1; stipend \$2400 for third-year, \$2800 for fourth-year student.

Kansas

TOPEKA STATE HOSPITAL, Topeka. Adolescents and adults; all disorders; inpatients and outpatients. Appointment 1 year, beginning July 1 or Sept. 1; stipend \$3000; room and board at nominal cost.

WICHITA GUIDANCE CENTER, 3422 E. Douglas, Wichita 8. Ages 3-17, parents and other adults; behavior problems of children, neurotic adults; outpatients. Appointment 1 year, beginning Sept. 1; stipend \$2700.

Kentucky

DEPARTMENT OF PSYCHIATRY AND MENTAL HEALTH, UNIVERSITY OF LOUISVILLE SCHOOL OF MEDICINE, 206 E. Chestnut St., Louisville 2. All ages; all disorders; inpatients and outpatients. Appointment 1 year, beginning mid-year or summer; stipend \$2800.

Louisiana

SOUTHEAST LOUISIANA HOSPITAL, Mandeville. Adolescents and adults; neurotic and psychotic; inpatients and outpatients. Appointment 1 year, beginning Sept. 15; stipend \$2400-4500, first \$300 per month tax free.

Maryland

PSYCHIATRIC INSTITUTE, UNIVERSITY OF MARYLAND, Baltimore 1. All ages; all disorders; inpatients and outpatients. Appointment 1 year, beginning Sept. 16; stipend \$2000 for second-year, \$2400 for third-year student, stipends are tax exempt.

Massachusetts

DEPARTMENT OF PSYCHIATRY, CHILDREN'S HOSPITAL, 300 Longwood Ave., Boston 15. Ages birth to 21, some parents; neurotic, psychosomatic, and some psychotic; inpatients and outpatients. Appointment 1 year, beginning Sept. 1; stipend of USPHS fellowship, amount based on level of training.

JUDGE BAKER GUIDANCE CENTER, 295 Longwood Ave., Boston 15. Ages 5-17; neurotic and behavior disorders; outpatients. Appointment 1 year, beginning Sept. 1; stipend \$2400-4000.

WORCESTER STATE HOSPITAL, Worcester. Adults; all disorders; inpatients and outpatients. Appointment 1 year, beginning July 1; stipend of USPHS fellowship, amount based on level of training.

Michigan

CHILDREN'S CENTER OF METROPOLITAN DETROIT, 5475 Woodward Ave., Detroit 2. Children through high school and parents; neurotic and behavior disorders; outpatients. Appointment 1 year, beginning July 1; stipend \$2860.

Minnesota

AMHERST H. WILDER CHILD GUIDANCE CLINIC, 670 Marshall Ave., St. Paul 4. Ages 3-17; all disorders; outpatients. Appointment 1 year, beginning Oct. 1; stipend as granted by USPHS.

Missouri

ST. LOUIS STATE HOSPITAL, 5400 Arsenal St., St. Louis 9. All ages; all disorders; inpatients and outpatients. Appointment 1 year, beginning Sept. 15; stipend \$3600; temporary living quarters.

MEDICAL PSYCHOLOGY, DEPARTMENT OF PSYCHIATRY AND NEUROLOGY, WASHINGTON UNIVERSITY SCHOOL OF MEDICINE, St. Louis 10. All ages; all disorders; inpatients and outpatients. Appointment 1 year, beginning July-Sept.; stipend \$2400.

Nebraska

NORFOLK STATE HOSPITAL and OUT PATIENT CLINIC, Box 902, Norfolk. All ages; all disorders; inpatients and outpatients. Appointment 1 year, beginning Sept. 1; stipend \$3000.

New York

PSYCHIATRIC DIVISION, KINGS COUNTY HOSPITAL CENTER, 606 Winthrop St., Brooklyn 3. All ages; all disorders; inpatients and outpatients. Appointment 1 year, beginning Sept. 16; stipend \$2510.

DEPARTMENT OF PHYSICAL MEDICINE AND REHABILITATION, NEW YORK UNIVERSITY, BELLEVUE MEDICAL CENTER, 400 E. 34th St., New York. All ages; physically disabled; inpatients and outpatients. Appointment 1 year, beginning Sept.; stipend \$2400 for third-year, \$2800 for fourth-year student.

NEW YORK HOSPITAL, WESTCHESTER DIVISION, 121 Westchester Ave., White Plains. All ages; functional disorders, some neurological; inpatients and outpatients. Appointment 1 year, beginning summer; stipend \$2400; free duty lunch.

North Carolina

DUKE UNIVERSITY HOSPITAL and the DURHAM CHILD GUIDANCE CLINIC, Durham. All ages; all disorders; inpatients and outpatients. Appointment 1 year, beginning July 1 or Sept. 1; stipend \$2400.

Ohio

UNIVERSITY HOSPITALS OF CLEVELAND, 2065 Adelbert Rd., Cleveland 6. All ages; all disorders; inpatients and outpatients. Appointment 1 year, beginning Sept.; stipend \$2400-2800; opportunity to teach in Dept. of Psychiatry, Western Reserve University.

COLUMBUS PSYCHIATRIC CLINIC, 1960 W. Broad St., Columbus 15. Adults; psychoses, psychoneuroses, personality disorders; outpatients. Appointment 1 year,

beginning any time; stipend \$3300 for third-year, \$3600 for fourth-year student, tax exempt.

COLUMBUS PSYCHIATRIC INSTITUTE AND HOSPITAL, Ohio State University Health Center, Columbus 10. Ages 16 and up; all disorders; inpatients and some outpatients. Appointment 1 year, beginning anytime; stipend \$2760-3000.

Pennsylvania

THE DEVEREUX FOUNDATION, Devon. Ages 5-20 and parents; all disorders; inpatients. Appointment 9-12 months, beginning any time; stipend as granted by USPHS; room and board for single interns.

CHILD STUDY CENTER, INSTITUTE OF THE PENNSYLVANIA HOSPITAL, 111 N. 49th St., Philadelphia 39. Ages 2½-18 and parents; all disorders; outpatients. Appointment 1 year, beginning Sept. 1; stipend \$3000.

PITTSBURGH CHILD GUIDANCE CENTER, 201 De Soto St., Pittsburgh 13. Children and parents; emotionally disturbed; outpatients. Appointment 1 year, beginning Sept. 1; stipend dependent on experience.

Rhode Island

EMMA PENDLETON BRADLEY HOME, 1011 Veterans Memorial Parkway, Riverside 15. Children; all disorders; inpatients. Appointment 1 year, beginning Sept. 1; stipend \$2800, tax free; full maintenance for single interns at \$55 per month.

Tennessee

GAILOR PSYCHIATRIC HOSPITAL, SCHOOL OF MEDICINE, UNIVERSITY OF TENNESSEE, 42 N. Dunlap St., Memphis. All ages; all disorders; inpatients and outpatients. Appointment 1 year, beginning any time; stipend \$2400-2760; probably teaching opportunities at University of Tennessee Night School for remuneration.

Texas

DEPARTMENT OF PSYCHIATRY, UNIVERSITY OF TEXAS SOUTHWESTERN MEDICAL SCHOOL, 2211 Oak Lawn Ave., Dallas. All ages; all disorders; inpatients and outpatients. Appointment 1 year, beginning Sept. 1; stipend \$2400.

DEPARTMENT OF PSYCHIATRY, BAYLOR UNIVERSITY COLLEGE OF MEDICINE, TEXAS MEDICAL CENTER, Houston. All ages; all disorders; inpatients and outpatients. Appointment 1 year, beginning Sept. 1; stipend \$2400; meals at hospital.

Utah

DIVISION OF PSYCHOLOGY, DEPARTMENT OF PSYCHIATRY, MEDICAL COLLEGE, UNIVERSITY OF UTAH, 156 Westminister Ave., Salt Lake City. All ages; all disorders; inpatients and outpatients. Appointment 1 year, beginning July 1; stipend as granted by USPHS.

THE FIRST INTERNATIONAL SYMPOSIUM ON MILITARY PSYCHOLOGY

FRANK A. GELDARD

University of Virginia

A NEW note in international cooperation was sounded in the convening, on the two days just preceding the Brussels Congress, of the first International Symposium on Military Psychology. About 200 psychologists from 15 European countries, the Near East, Canada, and the United States met, on July 26-27, at the Palais des Académies, Brussels, in a five-session program of invited papers ranging freely over the content of military psychology. Planning for the symposium had begun at a meeting, held in February 1956, of the Committee on International Relations in Psychology of the United States National Research Council (H. S. Langfeld, Chairman). A discussion took place with invited Armed Services representatives relative to the possibility of taking advantage of the holding of the fifteenth International Congress of Psychology at Brussels (July 28-August 3, 1957) to bring European military psychologists together with those from America. Such a gathering seemed feasible, and there eventuated an agreement between the Division of Anthropology and Psychology, NRC, and the Air Research and Development Command, USAF, to implement the plan. The writer of this report, because of his strategic location as Scientific Liaison Officer with the Office of Naval Research, London, was designated General Chairman of the symposium.

It was early agreed to bring together representatives of European military psychology to serve as an advisory group, and advantage was taken of the circumstance that the initial meeting of the recently created Section of Experimental Psychology and Animal Behavior of the International Union of Biological Sciences, which involved several members of the projected advisory committee, was due to meet on October 4, 1956 at Strasbourg, France. Accordingly, a planning meeting was scheduled for October 3 and was held at the Maison Rouge in Strasbourg with 14 psychologists present. They represented Belgium, Denmark, France, Western Germany, Great Britain, Italy, Netherlands, Norway, Sweden, Switzerland, and the United States.

Subsequently, representatives of Finland and Spain were added to the group.

The proposal to hold the symposium was enthusiastically endorsed, and important decisions concerning its conduct were arrived at: (a) an attempt would be made to get participation by military psychologists from all countries of Western Europe; (b) papers would be prepublished in two languages, English and French, and authors would be given an opportunity, at the formal session, to introduce or amplify their written contributions; (c) a discussion leader would be assigned to each paper with a view to encouraging free discussion from the floor; (d) if possible, simultaneous translation facilities would be procured; (e) contributions would be welcomed from any of the several areas of military psychology, but topics most enthusiastically discussed at Strasbourg were flying safety, stress, military training and education, attitudes and morale within the military, motivation for service, and human engineering in military systems; (f) from the beginning it would be well to look toward the eventual publication of proceedings of the conference; (g) as background material for the discussions it would be helpful if each participating country would prepare a brief description (500-800 words) of the status of military psychology within its own precincts, these accounts to be distributed in sets to all national groups; (h) invitations to attend the symposium would go forward by way of military attachés of Washington embassies, through announcements in professional journals, and as an adjunct to the fifteenth congress literature if the congress authorities found this agreeable.

It is pleasant to report that all symposium aims were (or are about to be) realized. Through extensive correspondence and personal visits, over a period of several months, advice was sought and received concerning prospective contributors, discussants, and session chairmen. Not all objectives of the symposium could be held to have equal importance. Highest priority was assigned to inclusive-

ness: it was deemed vital to have representation from all countries of Western Europe active in the field of military psychology. The program ultimately adopted reflects this. Of the 16 papers distributed over the four daytime sessions (two mornings and two afternoons), four were from the United Kingdom, three from the United States, two from France, and one each from Belgium, Finland, Italy, Netherlands, Norway, Spain, and Sweden. Discussants of these 16 papers were distributed as follows: United States, four; France, two; Switzerland, two; and one each from Austria, Denmark, Finland, Western Germany, Italy, Netherlands, Spain, and the United Kingdom. Symposiasts represented all countries mentioned and, in addition: Egypt, Greece, Hungary, Israel, Yugoslavia, and Turkey. Chairmen of the four sessions were from Canada, France, Netherlands, and the United Kingdom.

A fifth session, held on Friday evening, featured an invited address by Arthur W. Melton on "Military Psychology in the United States of America." Melton's address is reproduced in full in this issue of the *American Psychologist*.

Analysis of the program shows that all major contents and emphases in military psychology were represented. Though more than one category might claim a particular contribution, the papers fell under the following rubrics: Manpower Analysis, Selection and Classification of Personnel, Military Training and Education, Psychophysiology and Human Engineering, Proficiency Measurement, and Military Management and Morale. The full program follows:

FIRST SESSION

0930, Friday, July 26

Chairman: C. R. MYERS, *Canada*

Remarks of Welcome
by

P. JACQUES DE DIXMUDE, *Belgian Armed Forces*
and

PHILIP H. MITCHELL, *United States Air Force*

1. V. COUCHERON-JARL, R. GERHARDT, and E. RIIS, *Norway*. Approaches to the problem of flying safety.

Discussant: W. B. WEBB, *United States*

2. D. WALLIS, *United Kingdom*. Auditory and visual search problems.

Discussant: P. BAKAN, *United States*

3. R. MARGARIA, T. GUALTIEROTTI, and D. SPINELLI, *Italy*. Effect of stress on lower neuron activity.

Discussant: A. FESSARD, *France*

4. J. M. CHRISTENSEN, *United States*. Engineering for the human.

Discussant: H. C. W. STOCKBRIDGE, *United Kingdom*

SECOND SESSION

1400, Friday, July 26

Chairman: C. A. CHANDESSAIS, *France*

5. L. DELYS, *Belgium*. Une approche particulière de l'analyse de la fonction de sous-officier.

Discussant: R. BONNARDEL, *France*

6. Méd.-Gén. HAMON, *France*. Attitude du commandement et des cadres vis à vis de la psychologie scientifique.

Discussant: L. MESCHIERI, *Italy*

7. A. DE BRISSON and P. LEGRAND, *France*. Les motivations du personnel navigant.

Discussant: J. L. PINILLOS, *Spain*

8. J. GERMAIN, *Spain*. Validity of the United States Aircrew Classification Battery in a sample of Spanish pilots.

Discussant: J. TERMÖHLEN, *Denmark*

EVENING ADDRESS

2015, Friday, July 26

Chairman: F. A. GELDARD, *United States*

- A. W. MELTON, *United States*. Military Psychology in the United States of America.

THIRD SESSION

0930, Saturday, July 27

Chairman: R. W. VAN DER GIESSEN, *Netherlands*

9. L. CARMICHAEL and L. E. BAKER, *United States*. Selection of army officers for combat service.

Discussant: W. WITTE, *Western Germany*

10. S. D. FOKKEMA, *Netherlands*. A scoring system for group interaction in an officer-quality assessment program.

Discussant: A. CARP, *United States*

11. P. J. SADLER, *United Kingdom*. Management training for senior NCO's.

Discussant: K. RAINIO, *Finland*

12. T. HUSÉN, *Sweden*. The contribution of the interview to the prediction of success in military jobs.

Discussant: J. UNGRICHT, *Switzerland*

FOURTH SESSION

1400, Saturday, July 27

Chairman: N. A. B. WILSON, *United Kingdom*

13. K. D. KRYTER, *United States*. Some human factors in noise control.

Discussant: R. J. H. KRUISINGA, *Netherlands*

14. E. SIRO, *Finland*. Wartime success of mentally subnormal soldiers.

Discussant: H. K. KNOEPFEL, *Switzerland*

15. J. A. LEONARD and P. M. FITTS, *United Kingdom and United States*. The discriminability of simulated visual signals.

Discussant: I. KOHLER, *Austria*

16. F. H. LAKIN, *United Kingdom*. The development of training criteria with a view to operational validity.

Discussant: R. M. GAGNE, *United States*

No attempt will be made here to abstract or otherwise characterize the papers. There is currently in preparation a Proceedings of the First International Symposium on Military Psychology, to be published under the auspices of the United States National Academy of Science. It will reproduce all 17 papers of the symposium, will provide abstracts in English and French of all contributions, will digest the discussions (all of which were recorded on tape at Brussels), and will carry a suitable historical introduction in its preface.

A meeting to be held in one country, sponsored by organizations in a second, and with its General Chairman in residence in still a third is unlikely to be an unqualified success unless there is thoughtful coordination and sympathetic cooperation by all concerned. Whereas this is not the place to list all those who were helpful in smoothing the way for the first International Symposium on Military Psychology, it would be unthinkable not to acknowledge the labors of Glen Finch, Division of An-

thropology and Psychology, NRC, who provided uniformly effective management from the initial planning stages to the conclusion of the venture; Louis Delys, Secretary-General of the fifteenth International Congress of Psychology, who coordinated the symposium with the congress in many effective ways; Marilyn Lee van Goetham, Headquarters, Air Research and Development Command in Europe, who attended to many of the Brussels arrangements for the symposium and whose responsibilities extended well beyond its termination; Clifford Frisby, Director of the National Institute of Industrial Psychology of Great Britain, who not only coordinated the contributions from the United Kingdom but gave freely of his time and energies at several crucial stages of planning; and Charles Chandessais, Secretary of the Commission des Sciences de l'Homme of the Comité d'Action Scientifique de Défense Nationale, who performed a similar service for the French contributions.

It was a matter of great disappointment that H. S. Langfeld, who had attended the Strasbourg planning session and whose interest in and support of the symposium were evidenced in many ways throughout the year or more of advance work, was prevented by orders of his physician from making the long journey to the Brussels symposium. A committee consisting of Chandessais, Frisby, and Walter Miles (Chairman) drew up suitable resolutions of regret which were cabled to Langfeld. The same committee prepared a statement for submission to the symposium, thanking the United States National Academy of Sciences and the USAF Research and Development Command for their sponsorship of the meeting and expressing to the local hosts appreciation for the excellence of the arrangements. It was judged that the first International Symposium on Military Psychology had been highly successful, and it was the hope that a pattern had been created for future gatherings of the same kind.

MILITARY PSYCHOLOGY IN THE UNITED STATES OF AMERICA¹

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I AM greatly honored, and therefore deeply pleased, by this opportunity to present an overview of military psychology in the United States. Certainly, a heavy responsibility is shouldered by anyone chosen to represent the very large number of capable scientists and the many excellent and influential laboratories and programs that are the substance of military psychology in the United States today. To do so in a communication short of book length requires, of course, emphasis on generalities, and a great deal of selection among generalities as well. If my generalizations turn out to be controversial in some instances, I am sure that my colleagues are sufficiently numerous to provide the necessary antidotes.

Before proceeding further, I feel compelled to discuss the meaning of the term "military psychology." In the American Psychological Association, the Division of Military Psychology, which was established in 1944, is made up of psychologists who have worked for the military establishment, either as part of the in-house effort or the contract effort. One finds among them, therefore, psychophysicists, experimental psychologists, psychometricians, social psychologists, clinical psychologists, and not a few psychologists whose specializations have been homogenized by administrative service.

By ostensive definition, military psychology is clearly coextensive with all psychology, except perhaps developmental psychology, and has as its unique unifying characteristic merely the specific contexts of application—such as the operation or maintenance of the fire control system of an interceptor aircraft, the radar interpretation tasks of a navigator-bombardier, the specifics of a personnel management system that has its roots in the traditions of a service, the unique characteristics of an authoritarian society, or the extreme hazards of mortal combat. The appropriate analogy for mili-

tary psychology is, therefore, industrial psychology, which is also defined by the specific contexts of application afforded by our business and industrial society.

The important conclusions to be derived from this view of military psychology are two: First, military psychology will be heavily dependent for its advancement and effectiveness on the level of understanding and theory of basic human psychology and must in its own self-interest be supported by fundamental research in at least selected areas of psychology. Some of these areas will be mentioned later, but the selection mentioned there should not be permitted to dull my present point, which is that military psychology, by the very nature of its formal relations to psychology at large, depends upon progress in basic scientific psychology.

My second conclusion from this view of military psychology is that the applications of psychology to military problems require psychologists who know the specifics of the policies, procedures, operations, and *weapons* of the military service to which the applications are to be made. Insofar as these policies, weapons, operations, etc. have fundamental differences among the Army, Navy, and Air Force, there is, then, a real distinction to be made between Army psychologists, Navy psychologists, and Air Force psychologists. However, I strongly suspect that the conceptualization of the role of the military psychologist and of the requirements for and applications of research and development in military psychology is properly the same for all three services. At least, I shall make this assumption when I develop, somewhat later, the place of the concept of the personnel management system and of the concept of the weapon system in recent developments in military psychology of the United States, even though I draw primarily from my Air Force experience in that discussion.

One final statement about military psychology as viewed here is perhaps in order. This is to the effect that my concern is with military psychology as a branch of psychological science and technol-

¹ An address delivered before the first International Symposium on Military Psychology, Brussels, Belgium, July 26, 1957.

² Now at the University of Michigan.

ogy, not as a professional occupation of psychologists in or out of uniform. If the activity of the psychologist in the military establishment involves research, development, test, and inferential extrapolation from systematic knowledge and theory, then I intend to include it in what I am discussing, otherwise not.

With these comments as my frame of reference, I now turn to the principle trends and emphases of contemporary military psychology in the United States. These trends and emphases have their roots in the past, of course, at least as far back as World War I. American psychologists at that time not only produced the Army General Classification Tests of that day—the Army Alpha Test and the Army Beta Test—but also involved themselves in the development of job-knowledge tests, the training of naval gunners, the analysis of aircraft pilot ability, and probably many other familiar sounding, military problems about which we have no written record.

Between World War I and World War II, there was almost no interest of American psychologists in military problems, perhaps because there was almost no interest of the military in gaining the assistance of psychologists. Exceptions were the development of a new and improved Army General Classification Test by The Army Adjutant General and some research on psychomotor selection tests for aircraft pilots which was done under the aegis of The Surgeon General of the Army Air Corps. Then, with the clouds of World War II on the horizon, psychologists were recruited rapidly and in large numbers to do a great variety of research studies and technical applications for the benefit of military operations.

The history of this effort is so recent and so familiar to most of you that nothing needs to be said about it except to comment on how psychologists were put to work by the military. In the first place, the largest single program, that of the Army Air Force, was organized under medical auspices and was, therefore, strongly directed toward problems involving the psychological selection of personnel, to the exclusion—at least until late in the war—of problems of training, proficiency measurement, and the many other elements of the military personnel system that are required to produce the trained men. Other programs, such as those under certain bureaus of the Navy, under The Adjutant General of the Army, and of the National Defense Research

Council, were not necessarily thus restricted, but there was an overall heavy emphasis on personnel selection. In the second place, it is my impression that all requisitions by the military for psychological assistance tended to be on a piecemeal basis—what we in the States call a “fire fighting,” “snake killing,” or, more elegantly, a “crash” basis. This is to be contrasted with the utilization of psychological science and technology on a systematic basis wherever in military operations the characteristics, modifiability, maintainability, dependability, or judgment of the human being is critical to effectiveness of military operations. The latter is an ever-increasing characteristic of military psychology in the United States during the past 10 years and is the keynote of my discussion.

However, before attempting to define this unfolding systematic role of psychologists in military affairs, I must convey to you something of the magnitude of this effort on military psychology during the last 10 years. My technique was a hasty counting operation, undoubtedly inaccurate, but good enough for my present purpose. In the 1948 *APA Directory*, I have identified 98 psychologists who were working for the Departments of Defense, Army, Air Force, or Navy. This represents about 2% of the 5,047 members of the APA at that time. In the 1957 *APA Directory*, I have counted 729 psychologists who are listed as working for agencies of the military departments. (This includes those working for the RAND Corporation, a large contract agency of the Air Force, and for the Human Resources Research Office, a large contract agency of the Army; but, even so, this number is probably an underestimate, as compared with the 1948 figure, since I counted only those working for agencies that employed three or more psychologists.) These 729 psychologists represent almost 5% of the 15,000 members listed in the 1957 *APA Directory*.

The extent to which this represents a major effort of American psychologists can be better appreciated when it is known that, again according to my hasty count, approximately 33% of the psychologists listed in the 1957 *APA Directory* have positions in our universities or colleges. There is, then, one full-time military psychologist in the government service (military or civilian) for every 6.5 academic psychologists. Another clue to the magnitude of the effort, but perhaps of more unique interest to my compatriots than to all of you, is the

fact that we military psychologists now seem, by my counting system, to outnumber the clinical psychologists in the Veterans Administration of our government by a factor of 7 to 6. And even this information has two cutting edges, since many of the clinical psychologists in the Veterans Administration are concerned with fundamental and clinical research on problems of interest to military psychology and perhaps properly conceived as a part of military psychology.

As one must know, the in-house effort in military psychology is only a part of the total effort. In the first place, the work of these seven-hundred-odd psychologists is supported by many nonpsychologist officers and men of the Armed Services and by civilian engineers, mathematicians, technicians, and clerks. In the second place, there is a contract research and development program in military psychology and related areas which has had a total budget of approximately \$5,000,000 for the last several years. A very great part of these contract funds goes to our colleges and universities, and much of it, of course, is for fundamental research on problems of importance to the military and therefore deserving of its support.

As an aside, it may be noted that these data on the in-house and contract efforts of our military establishment strongly suggest that the in-house effort far outweighs the contract effort. If one assumes that each in-house psychologist represents the expenditure of \$25,000 for his salary and his supporting people and equipment—which is, I suspect, an underestimate—then the in-service programs represent an expenditure of approximately \$18,000,000 per year. This is compared with the \$5,000,000 per year in contract funds. Even though there are some errors in my accounting, when it is used for this purpose, the balance is surely and heavily in favor of the in-house effort. This situation has, in my opinion, been in the best interests of the development of self-conscious and experienced military psychologists. It may even be required that a systematic program of application of psychology to military problems have a strong in-house effort as its chief resource.

This question of in-house versus contrast effort may be a matter that will preoccupy the attention of military psychologists in the United States in the next few years. But, at the present moment in history, there can be no question about the wide-

spread institutionalization of military psychology within our Armed Forces.

In the Army, we have, among others, the Personnel Research Branch of The Adjutant General's Office, the Human Resources Research Office (a contract effort primarily in support of the Continental Army Command), the Psychology Department of the Army Medical Research Laboratory, the Psychology Department of the Walter Reed Army Institute of Research, the Army Ordnance Human Engineering Laboratory, and psychology sections in the Quartermaster Research and Development Command.

In the Navy, we have an Engineering Psychology Branch of the Naval Research Laboratory, a Human Factors Division of the Naval Electronics Laboratory, a Personnel Analysis Division of the Bureau of Naval Personnel, and psychological units as part of the Naval Medical Research Institute, Aeronautical Instruments Laboratory, Aircrew Equipment Laboratory, Aviation Medical Acceleration Laboratory, Medical Research Laboratory, and the Office of Naval Research, among others. This is an incomplete list of psychological agencies in the Navy, but it will give some notion of the wide dispersal of military psychologists therein.

In the Air Force, we have all military psychology research and development within the Air Research and Development Command, except a Department of Psychology and a Department of Clinical Psychology within the Air Force School of Aviation Medicine and a small element of the Arctic Aeromedical Laboratory. Within the Air Research and Development Command, there are human engineering research and development agencies within the Wright Air Development Center, within Rome Air Development Center, Air Force Cambridge Research Center, the Air Force Special Weapons Center, and the Air Force Flight Test Center. All personnel and training research of the Air Force is currently allocated to the Air Force Personnel and Training Research Center, which is one of the 11 major operating elements of the Air Research and Development Command.

My purpose in this lengthy listing of these many contributing elements of military psychology in the military establishment was, first, to give appropriate emphasis to the great diversity of uses to which psychologists are put and to the consequently great variety of projects these agencies must, by their very titles and associations, engender.

My second purpose was to give you roughly the information to support a statement about how military psychology is organized within the Armed Forces in the States. In the Navy, small groups of psychologists are located at many different places and with their responsibilities defined in terms of some parent organization. This represents a great degree of decentralization of mission and responsibility. In the Army, there is some distributiveness, but the Army has established two agencies—the Psychology Branch of The Adjutant General's Office and the Human Resources Research Office—which have rather broad areas of responsibility within military psychology. Finally, in the Air Force, one finds a highly centralized control of military psychology in the Air Research and Development Command, and within that command all personnel and training research—basically all military psychology except that called “human engineering” or “engineering psychology”—concentrated in one operating organization: the Air Force Personnel and Training Research Center.

I do not propose to argue the relative merits of centralized versus decentralized organization and management of military psychology, but I do believe that a centralized organization such as we have in the Air Force encourages—perhaps even forces—the systematic conceptualization of the role of military psychology in military affairs. And I believe, as you will see in a moment, that this systematic conceptualization of the role of psychology in military affairs is a ripple that will become a wave in future military psychology.

The needs of the military establishment for military psychology may be conveniently structured under three headings: (a) improvement of the military personnel management system, (b) contributions to the development and effective operational use of new weapons and weapon systems, and (c) the interactions of the personnel management system and the weapon systems. My thesis is that these organizing concepts—the personnel management system and the weapon system—may be used not only to organize and assess the military psychology of the past but also to identify the needs for military psychology research and development of the future. My subordinate thesis is that the recognition and use of these organizing concepts to define the role of psychology in military affairs is the most significant recent development in military psychology in the United States.

While the Air Force, with which I am associated, has been the most vocal, most explicit, and most self-conscious—as compared with the Army and the Navy—in the use of these concepts, it would be wrong to think that the Air Force is alone in this development. One may find historical precedents in the Navy psychologist's approach to the submarine as a man-machine system and also in his approach to the functions and manning of a combat information center. Also, one finds some evidence for the use of the concept of the Navy Personnel Management System as the frame of reference for Navy research on personnel problems. The Army likewise seems to employ the concept of a personnel management system on occasion, but precedents for their use of the weapon system in structuring their psychological work have been difficult for me to identify. Perhaps this is my ignorance, or perhaps it is that the Army has not until very recently dealt with man-machine systems of the extraordinary complexity which characterize Navy and Air Force weapons and weapon systems.

I wish to discuss first the concept of the military personnel management system, which is the entire complex of policies, procedures, and operations that are required to supply to the military forces the human beings with the required characteristics to play the various roles assigned to them in combat and combat-support operations. Fundamentally, the whole *raison d'être* of the military personnel system stems from the need to select, then mold, men to the roles required by the weapons we use. Said in another way, and with emphasis on the fact that our weapons are becoming ever-more-complex integrations of men and equipment: the military personnel system has the function of producing and delivering the human components of each weapon system to specifications that are inherent in the weapon-system design or directly derivable from the design and intended operational use of the weapon system.

We find this role of the personnel system gaining ever more recognition within the military services as the weapons become more complex, as the demands upon human skills, knowledges, and decision making capacities become greater, and as the failures of the traditional military personnel practices become more devastating to combat effectiveness. As proof of this recognition is the fact that the Air Force now defines in regulations a weapon system—such as an interceptor aircraft and its associated

ground operations—as the equipment *plus the knowledges and skills required to operate and maintain it*. And one finds the Personnel Specialist in our Air Force ever more concerned with the specific characteristics of the new weapons under development.

What, then, are the elements of the personnel management system that should be the focal points for the programs of research and development of the military psychologist? Some of the major elements are the following: (a) military organization; (b) personnel management; (c) occupational analysis, including job and task definitions and descriptions; (d) national and military manpower analysis; (e) personnel procurement; (f) personnel classification; (g) formal training; (h) initial personnel assignment and reassignment; (i) on-the-job training; (j) training devices; (k) handbooks, job aids, and standing operating procedures; (l) personnel proficiency measurement; (m) cross-training and career development; (n) maintenance of personnel effectiveness under unusual social and environmental conditions; (o) retention and reenlistment of personnel; and (p) retirement of personnel.

This list of elements is certainly without novelty. For many years, such elements have been used by military psychologists to describe the "personnel operations" of a military organization to which their research applies. The difference in our present approach is that there is emphasis on the systematic integration of these elements and, hence, emphasis upon the need, even the necessity, for conducting research and recommending applications with full realization of the *interactions* of these elements. For example, in the past few years, it has become increasingly evident that one cannot define military jobs without making certain critical assumptions about military organization, and this causes the military psychologist to entertain new notions about researchable aspects of military organization. Likewise, one cannot approach training research without recognizing immediately the possibilities of interaction between training methods and personnel selection standards, on the one hand, and personnel proficiency standards on the other. Likewise, there has been recognition of the self-evident fact—after the fact!—that a research effort on the design and production of handbooks and other job aids must reflect the intimate interactions between the characteristics of such handbooks or aids and (a) the quality of personnel re-

cruited, (b) the way in which the military jobs are structured, (c) the level of training and education given to the individual who will use the handbook or aid, (d) etc. In short, this conceptualization of the many personnel operations of the military establishment as a *system* of operations designed to select, train, and maintain men to match the machinery of war is considered to be the efficient and effective way to define the role of the psychological and social—or behavioral—sciences in military personnel management.

This value of the concept of the personnel system becomes even clearer when one attempts to define long-range programs of research in military psychology. In this case, in view of the time-lags involved in long-range research, one must anticipate by many years the critical personnel problems of the future, match these with anticipated developments in science and technology, and identify those areas of fundamental long-range research that the military establishment must support in order to insure solutions to its problems. Some of us have attempted to do this sort of thing, and we find that it is impossible without the personnel management system as our conceptual framework. In fact, we find it necessary to go beyond such a system defined solely in terms of military goals, and consider the intimate interactions between the military personnel system and the national social system in which the military system is embedded. But, any extension of my discussion along these lines would lead me too far afield—at least for an old-line military psychologist—so I will return to my main theme by pointing out that the most important clue to what the military personnel system will be in, say, 1965 is to be found in an analysis of the personnel requirements of the weapon systems that are considered as possibilities or strong probabilities for 1965. Therefore, I should like to turn now to the role of the military psychologist in the development of new weapon systems.

The psychologist becomes importantly involved in the development of new weapon systems in two ways which are discriminable even though in actual practice they should not be separated. On the one hand, he is the scientist primarily responsible for spelling out the implications of the new weapon system for change in the supporting military personnel system. On the other hand, he is and *must* be intimately involved in the design of the weapon system, since he is the scientist most knowledgeable

about the capacities and limitations of the human component or human components that will be married with the equipment components to produce the system.

It will be readily appreciated that the first responsibility is closely allied to the responsibilities I have outlined in my discussion of the military personnel system, and the military psychology problems that this responsibility generates are as one with those which have just been described. But, there is a difference. In the present instance, the psychologist is in the position of describing and specifying the personnel system that will be required to produce the required human components of the specific weapon system, with the required knowledges, skills, and operating procedures, all far in advance of the creation of even the first model of the hardware of the system. The reason why this design of what we now call the "personnel subsystem" of the new weapon system must be inferential and far in advance of the delivery of the hardware components is that the military personnel management system must produce the required human components according to a schedule which brings them together with the hardware components as soon as the latter are ready for system tests and operational use.

Only through bitter experience, in which there were delays of one, two, and sometimes more years in the achievement of the planned operational capability of a new weapon system, have we come to realize that new weapon systems almost invariably generate new jobs or critical revisions of old jobs and that these jobs require revisions of the existing personnel system or some elements thereof: new selection criteria, new job classifications (even new classification systems), new training courses, new and tailor-made training devices, new on-the-job aids, new proficiency measures, etc. In short, what is required of the scientist is that he collate equipment design information, information about the intended operational use of the weapon system, information about the existing characteristics of the military personnel system, and his principles of psychology in order to come up with the specifications for a personnel subsystem tailored to the efficient and effective production of the human components of the new weapon system.

This function of psychologists in the military establishment has three important implications for military psychology as a science. First, this re-

quirement for extrapolation of psychological knowledge to new and untried systems underscores the need for generalizable research on the elements of the personnel system previously discussed—since it is only through such generalized knowledge that both the old and new weapon systems can be encompassed. Second, the anticipated characteristics of the hardware in future weapon systems serve as a source of information on which to base decisions as to the relative priority of needs for research in military psychology. Thirdly, this role of the military psychologist in estimating the personnel system for a new weapon system has established a firm basis for man-machine system analysis and research as an area of military psychology. But, here the requirement is the same as that generated by the participation of the psychologist in the design of man-machine systems, and it may be best discussed in the latter context.

Sometime back, I said that the psychologist has two roles in weapon system development. I turn now to the second of these two roles. It is anticipated that future weapon systems will involve greater automation and programming of operations and maintenance, but that the functions of the human component will remain and become more critical. In order to provide guidance with respect to the feasibility and desirability of such automation of operations and maintenance, it will be necessary, in my opinion, to abandon the distinction between "human engineering" (which has been concerned with the effects of human capabilities and limitations on the design of hardware components) and "personnel and training research" (which has been concerned with the selection, training, and quality control of the human component). It becomes increasingly clear that the effective involvement of human components in weapon systems requires a unified approach of psychologists to the problem of providing the required human components. Considerations of the interaction of the human and equipment components, of the availability and trainability of the human components, and of the maintenance at par of the human component in the environment of system operation must occur simultaneously and at all stages of weapon system design, development, and use.

Almost all analyses of the interactions of human components and hardware components to date have been concerned with abstracted subsystems of relatively simple systems, such as the pilot and fire

control subsystems in an interceptor aircraft. This is because adequate theory and method for the analysis of total complex systems have not been devised. As a consequence, it is not possible to specify quantitatively the possible optimal arrangements of human and hardware components in total systems, nor to identify the overall change in system effectiveness resulting from improvement or degradation in the human or hardware components. Nevertheless, it is clear that techniques for total systems analysis are required for effective "human engineering" and for exact specification of the knowledge and skill characteristics of the human components that must be achieved through selection and training.

It is believed that the military establishment must initiate and support research on the theory and techniques of systems analysis immediately if future weapon systems are to reflect adequate consideration of the human components of systems. In view of the explorations of the applicability of mathematical and other models to this effort, I estimate that it may not be too many years before we have answers to the following questions: (a) What is the optimal division of system functions between human components and hardware components? (b) How must the hardware components be designed in order to provide, within the design of a system, for the reinforcement (reward, maintenance of motivation and skill) of the human component? (c) When the system involves multiple human components and multiple hardware components, what are the optimal linkages between man and man, and man and machine? (d) What are the essential

conditions for systems training, what are the essential characteristics of system training devices, and how may the operational readiness of systems be defined and verified, in the absence of actual war-time operations?

It is believed that there is readiness of both engineering and psychology for a frontal attack on these system-design and system-functioning problems, if the necessary facilities and resources are provided for such exploration. It is encouraging that there are several efforts in this direction underway in the United States at this time.

Finally, I need but note again that I have said that each new weapon system brings with it certain requirements for change in the overall military personnel system. Therefore, it should be clear that the military personnel management system of some specific future date—say, 1965—is to a substantial degree predictable if one knows the characteristics of the weapon systems under development today and proposed for use in 1965. As a consequence, the psychologist has, as his third role in the military establishment, participation in the long-range planning for the optimal military personnel system of the future and for the evolutionary—and sometimes revolutionary—changes that must take place in order to go from the personnel system of the present to the personnel system of the future.

My conclusion from all this is simple: I believe that military psychology is here to stay—even though it may have its unpopular and unfunded moments. Psychology is too useful—even too necessary—to be ignored by the military establishment.

REPORT ON A SUIT FOR LIBEL

The APA Board of Directors directed that a recent legal experience involving a suit for libel, in which the APA filed an Amicus Curiae brief, be summarized for the information of the APA membership. The following summary, however, should not necessarily be construed as defining points at law in lieu of specific legal advice.

The vital question before the court in this instance was whether a psychologist could examine a client at the request of a physician without the fear of being involved in litigation. In the absence of the right to take such action, psychology and related sciences would be in jeopardy.

The main facts were agreed upon by the defendant (a psychologist), by other professional persons associated with him, and by the persons who sued. The mother of a nine-year-old girl took the child to a state hospital for examination and treatment of what the mother judged to be an emotional condition, "claustrophobia," which kept her child from attending school. At the institution, a staff psychiatrist referred the child to the psychologist, a part-time employee of the institution. The psychologist is a Fellow of the APA and a clinical Diplomate. On the basis of a Stanford-Binet test, the psychologist reported that the child was at "the high-grade moron level of general mental ability." A copy of this report went to the girl's public school, and it was there that the mother saw the copy and heard "embarrassing rumors" about the child. The psychologist was sued for \$50,000 for "willful, malicious and false defamation of a child."

The basic question of interest to psychologists is whether such a professional opinion from the psychological profession can be considered "privileged." In legal language:

... there are certain qualified or conditionally privileged communications which, when made in good faith, without malice, to a person having a corresponding interest or duty, are non-actionable.

The court ruled that the patient:

... voluntarily submitted herself to an examination by a duly recognized psychologist, and having done so, she could not prescribe the diagnostic procedure incident to such treatment. To be sure, she was not libeled by the contents of the report. It was a professional report made by a public servant in good faith, and therefore could not be maliciously false.

The judge in the original trial went through the unusual step of taking the matter out of the hands of the jury and ordered a "directed verdict," i.e., he prepared a verdict in favor of the defendant, and the foreman of the jury signed the judge's verdict. In so doing, the judge said:

I'm perfectly clear that this was a privileged communication ... in the ordinary course of business of that institution. He was doing precisely the thing he was employed to do, he was doing it in the usual way, following standards which have acceptance all over the civilized world today. Those tests are given, not only in schools to test the capacity of youngsters to obtain knowledge, but those tests are given for admission into graduate schools, medical schools and law schools. Those tests are given in all of the large corporations ... they are given in the Armed Forces ... now how you can claim there isn't a privilege there I fail to understand.

The court therefore ruled that no evidence of "actual malice" had been shown.

Subsequently, the United States Court of Appeals, in affirming the decision of the lower court, held that the report of a psychologist in this instance was qualifiedly privileged and positively free from any actionable malice whatsoever. It was a professional report made by a public servant in good faith, representing his best judgment, and therefore could not be maliciously false.

Comment

On "Criteria of Adjustment"

The logical fallacy in Hoppock's comment (*Amer. Psychologist*, 1957, 12, 232) can be stated briefly. He argues: if a man is healthy, earns enough for necessities, is not often unemployed, is satisfied with his work and in his human relations in general, he is well adjusted; if he is not any of these things, he is not well adjusted. Symbolically: if P , then Q ; if not P , then not Q . This is erroneous, a case of *non sequitur*—unless, of course, it could be demonstrated that P is not only a necessary and sufficient but also the *sole* condition for Q .

As is the case with all mathematical reasoning, the foregoing, too, lacks flesh and blood. Let me put the guts into the skeleton.

When I finished reading Hoppock's comment, I recalled a scene from a Hungarian play, *The Tragedy of Man*, by Madach. The author, auguring our present-day dilemma almost a century ago, envisions a state board of psychiatrists examining the head of every high school graduate—phrenology having been fashionable then—and finding him or her a suitable line of work. Thus Da Vinci becomes a housepainter, Michelangelo a stonemason, Petrarch a printer, and Copernicus a state auditor. It also occurred to me that the world would have been better off if Al Capone had been employed as organizer of pizza distributors or if Hitler had stayed with painting—although both gentlemen could have been judged, at one point in their respective careers, eminently well adjusted according to Hoppock's criteria.

It would be too time consuming to enumerate the names of both great men and small, all of them perennially well adjusted by standards other than Hoppock's, who were sickly, died in the bubonic plague, or died of "consumption" because penicillin was not yet invented, who worked in the WPA or PWA because there were no jobs available, or who wrecked themselves in hard labor because their talents could find no immediate market: countless men and women who performed heroic deeds, risking their lives, whether in concentration camps or in wars, because in the defense of some principle of theirs that one course of action appeared to be the most practical, the most noble thing to do, and individual survival suddenly lost its high value as the ultimate good. It would be too time consuming to mention Socrates or Galileo who maladroitly endangered their smooth human relations by their words and deeds; to mention that there is hardly a self-respecting intellectual or artist in his early twenties who concerns himself *merely* with survival; to mention that any number of rich playboys who would qualify for Hoppock's criteria are but festering, Sybaritic parasites in our so-

ciety. I shall even check my impulse to quote inspired lines such as "Is life so dear . . ." or "And how can men die better . . ."; instead, let me state my objections in abstract form.

It seems to me that it is the omitted assumptions and the glaringly unstated value judgments that constitute the gravest source of misunderstanding in Hoppock's comment. Four out of five of his criteria—the exception being, perhaps, satisfaction in human relations—presuppose an enlightened freedom of choice, a benign environment, the absence of a set of pressing circumstances (that is, circumstances beyond human or individual control). Again, I trust that it is not necessary to quote examples that the individual today is easily caught up in events that are beyond his power to influence and beyond his means to control. If a man in the early 1930's did not have a job, or if a man lost his job in an area where the major portion of the labor force was employed by an industry that suddenly shut down, or if a man happened to be out of work because in defense of certain principles of his he was on strike with the rest of the members of his union: that in all these cases it would be meaningless to use "employment" as a criterion.

Likewise, health is not an isolated, simple, individualistic matter. The health of masses today depends upon numerous factors—it involves purity of water, food, drugs; immunization procedures; the detection, isolation, and cure of many different infections—until we are no longer aware of their total effect. Many of us would not be alive if it were not for Semmelweis—who, by the way, died of infection by dipping his finger, with an open wound, into a cadaver in order to prove his point. Whether it is the bite of a rabid dog in China, the non-availability of antibiotics in Africa, or the noninnoculated masses of India, I believe that health, like employment, can hardly be called today a matter of intelligent foresight or emotional balance. Again, a certain freedom of choice and even fortuitous circumstance must be assumed before it can become a measure of adjustment. Thus the first two of Hoppock's criteria could be demonstrated to say: "He who is lucky is well adjusted."

Job satisfaction, the freedom to choose one's line of work most obviously assumes an intelligent, leisurely choice. In addition, however, it assumes something even more important: effort. Man, uniquely in the animal kingdom, is able to put forth effort, to suffer frustration, to give up immediate satisfaction for the sake of future rewards or greater values, or even for the sake of disinterested curiosity, altruism, or bravado. Thus, job satisfaction can become secondary, can become subordi-

nate to other satisfactions, can become *transcendental*. As for continuous employment, I hardly need to mention that some of the most valuable things in this world have been thought, done, or said in leisure or borne of necessity when continuous employment could not have been maintained.

Lastly, as a clinical psychologist who is convinced of the validity of at least *some* of his theories, I want to mention self-awareness. Knowing as much or as little as we do about unconscious motivation and unconscious conflict, it seems hardly necessary to emphasize the overwhelming importance of awareness, insight, and understanding, and the role they play in our so-called free and intelligent decisions, culminating in good or poor adjustment. This awareness and self-understanding must still be thought of as lying within the limits of "normal" or "healthy," since it is a matter of degrees; but not many individuals today have the good fortune of having been taught the instruments of self-analysis, nor are there many who have had access to the services of an analyst.

Unless we equate adjustment with luck, vegetation, or survival at any cost, none of Hoppock's criteria stand up too well without extensive qualifications. I suggest that, instead of dodging the issue of values, we face them squarely and try to think of adjustment in terms of intelligence and freedom of choice first as necessary conditions; furthermore, in terms of awareness, self-realization, and fulfillment; in terms of the development, cultivation, and use of one's capacities to best advantage; also in terms of harmony, balance, purposeful striving and growth, and that ubiquitous monster of ethics: happiness.

ANDREW N. GLATTER
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Normality is Control of Impulses?

A given formulation of normality takes on diverging implications as different conceptions of abnormality are considered. The Schoben paper on normal personality (*Amer. Psychologist*, 1957, 12, 183-189) reveals the taking of great pains in the effort to theoretically tie anticipatory capacity to the control of antisocial impulses. Ghosts of something akin to the Freudian assumption that man is inherently a nonsocial animal seem to persist. The notion that one's impulses must either be controlled or whitewashed (inhibited or sublimated) is still not questioned.

Mowrer's thinking, which stands Freud upon his head by suggesting that neurosis is not the repression but rather the uncontrolled release of group disruptive urgings, certainly involves the assumption that such urgings are perhaps inevitable also. While it cannot be said that Schoben necessarily subscribes to the Mowrer conception of pathology, he certainly is aware of the impli-

cation when he states about his own position: "Mowrer and Ullman have made the same point . . . that normality results in large part from the acquired ability to subject impulses to control. . . ." (p. 186). The issue here is not with whether or not impulses are controlled, nor with the manner in which this is accomplished, but focuses, instead, upon the diverging implications which are exposed when different sources of the impulses are postulated.

If antisocial impulses are biologically given, then either (a) abnormality is unsuccessful "control" via repression, and normality, conversely, is release in simple or in socially prescribed form; or (b) abnormality is psychopath-like release (according to Mowrer, due to repression of inhibiting values), and normality now is the socially acceptable consequence of the operation of these restrictive standards. In either case, as long as "bad" impulses are inevitable, controls are just the container of a bomb.

At least one significant alternative seems possible and that is found in Horney's theory wherein antisocial impulses are conceived as a by-product—a result—of abnormality: feeling inadequate, the individual inflates or pumps himself up; this self-deception in turn requires social support, which, in not coming, results in a sense of being devalued; creating both hostility toward others (antisocial impulse) and fear of others, etc. Although instituting control over such impulses might keep one out of jail (resulting in Mowrer's "normal") or, again, the release of the impulses from restriction (Freudian reduction in inhibitions) might make one "un-neurotic" in jail, neither could hardly be expected to yield integration or "normality"—unless either release or restriction would also remove the self-deception which theoretically disturbed interpersonal relations. In this context, even the Socratic advice to know oneself would not mean "know your impulses so that you might control them," but rather, "stop pretending to be what you are not, and others will cease to appear so unappreciative; and you will also stop castigating yourself for falling short of your inflated self, and many impulses will no longer need control since they no longer occur."

A distinction between hostilities, in addition to the above, appears to be needed; one may be prepared to commit mayhem upon discovering that he has actually been exploited, thus, some very antisocial desire may be engendered. But, it may be argued, retaliation, not control, is rational, especially in those instances in which we hope for social change. In other situations, the recognition that social disapprobation will result in greater injury to one than accepting the initial injury may make restraint or "control" the more rational response. Even here, however, a conflict may arise between expedient self-restraint and the need to maintain integrity. Finally, some control may be appropriate in relation to

certain inevitable frustrations; democratic decision making, in favoring the majority, assumes frustration of the minority, who, it is also assumed, will accept its loss to the larger group with equanimity. One is not expected to like it but to conform and even cooperate. But this is *conformity* needed to maintain rational integrity—since one accepted the negative implications of democracy as well as the positive in the first place.

The negative connotation of conformity, it seems, is desirably avoided by stressing the fact that one's values may lead to behavior which others demand or applaud, but that self-consistency, rather than fearful compliance, is the motivation. This would be evident in those instances in which maintenance of one's standards resulted in either retreat from the group or in nonsocially preferred action.

The foregoing considerations certainly suggest that one does not do justice to the issue of impulse control by primarily stressing anticipatory capacity and suggesting that some form of conformity is avoided.

I. A. BURCH
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What is Basic in Education?

For years we have been saying that a major contribution of psychology to education is to induce reverence for facts, rather than tradition, in the determination of methods and curriculum. Now comes Nathan Kogan of Harvard with a positively subversive advocacy of traditional educational values and curriculum (*Amer. Psychologist*, 1957, 12, 226-227). "The present argument is specifically concerned with the intellectually able student who will proceed to college." Here is a neat aristocratic dichotomy: the able, college-bound vs. the dull, not college-bound. Unfortunately it does not fit the facts. There are far too many *able, not college-bound* and, alas, far too many *not-able, college-bound*. No discussion of curriculum is fact-observing that attempts Kogan's type of dichotomy.

Kogan objects to introducing psychology into secondary schools because it would interfere with three years of "basic science": physics, chemistry, biology. His colleagues in the School of Education will, I am sure, be glad to tell him where to find the *facts* about how many of even his "better-than-average high schools" offer such a three-year sequence, or how many students take it. Not many.

In any case, why such modesty? Is not psychology also a science, and indeed the basic science of all? The concrete, real facts about space, force, energy, for example, are those of perception. The abstractions of physical science dealing with these constructs are, as Cassirer says, not more real (or basic?) but only more general. If we are to fill the curriculum with basic sci-

ence, psychology must come first. I do not expect this to happen; nor indeed do I accept basicness as a valid criterion in curriculum building. But those who talk about basic disciplines should surely have a more up-to-date idea as to what is basic than is provided by Herbert Spencer's hierarchy of the sciences.

Kogan, however, is concerned chiefly with adequate preparation for work in psychology. Is it so certain that the study of physics and physiology really prepares a student for experimental psychology? Of course, it is easier for the instructor if the student knows an amp from amblystoma; but, even when they have studied high school physics and biology, they usually don't. At any rate the question is whether these subjects contribute to the pupil's deeper understanding of psychology.

Such understanding may be made more difficult rather than easier by exposure—especially premature exposure—to what Kogan calls the "systematic rigor" of the natural sciences. Psychologists for fifty years after Helmholtz's *Physiological Optics* were bogged down in an unpsychological (and unfactual) emphasis upon geometrical optics. Hence, e.g., the neglect of such facts as those of size constancy. These make no sense if we start with the size of the retinal image, unless we pile ad hoc hypothesis upon hypothesis. When we start with the concrete facts of seeing and then correlate these with the multiform conditions that determine them, the retinal image becomes but one cue among many. Size constancy with varying sizes of retinal image is no more mysterious than that we see right side up when the retinal image is inverted.

But what a difficulty that is, also, to the student heavily indoctrinated with Euclidean geometry as God's schema for the universe ("God is a geometer") and with the notion that physics gives us the one and only true picture of the "physical world"—whatever that means. Of course I am talking about the geometry and the physics actually learned in secondary school, about these subjects as now taught and as they are likely to be taught in a foreseeable future. In some ways, they clearly do facilitate the learning of psychology, in others they as clearly inhibit. We do not have the facts to indicate whether the transfer is on total balance positive or negative. (The superiority of science trained students in our psychology courses is, of course, in part a function of the selection of able students to take science.)

My argument does not lead to the conclusion that we should forthwith drop from the high school curriculum all courses in science, mathematics, foreign language, and history—I simply challenge their priority as basic. Let them stand on their merits as *factually determined*.

I believe we can prove factually that psychology is of worth to high school students. Nor should this valuable subject be available only to the intellectually underprivileged as Kogan proposes. Even the intellectually

superior, college-bound student can profit from the study of the facts of human behavior.

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Some More on the Samoans

The report of Levine (*Amer. Psychologist*, 1957, 5, 259-263) is likely to be of interest to many outside the academic cloisters. It is unfortunate that the author's well worded and well guarded strictures against any ethnocentric interpretation of the data were not supplemented with a bit of additional inquiry and insight into the Samoan background. A former Governor of American Samoa has reacted to two points with some interesting addenda, which I have his permission to quote:

I noted two items about which I think some comment ought to be made. On Pg. 260 the statement; "Perhaps even more disturbing are the positive Kahn Test results in about 80% of the young men examined." It surprised me that anyone could encounter this phenomenon in Samoa in a technical capacity without encountering also the explanation, which is very interesting. Dr. James Dean, Director of Public Health when I was there, told me that it was a rather well known fact that arrested cases of yaws produced positive reactions in the Kahn Test, and since the majority of Samoans have yaws at some time or other in their lives, and since modern medical practice (usually the use of penicillin) has proved so effective in arresting these cases, it can be safely said that although yaws is no longer a health problem in the Territory, no one should be surprised if 80% of the men tested in this particular age group should indicate a positive Kahn. An interesting sidelight on this, and one which I believe is being investigated (not in Samoa, but elsewhere) is that persons who have previously suffered from yaws have, to a certain degree, immunity to syphilis. At any rate, syphilis is not a problem in Samoa at all, although gonorrhea was occasionally reported, particularly following the examination of girls known to have associated with the crews of passing freighters.

The other item of interest concerns the high score of the Samoans in the radio code aptitude test. Again it surprises me that anyone who had spent any time in Samoa should find this remarkable. The basic elements of Samoan music are percussive rhythm instruments, principally sticks, hollowed logs, rolled-up bundles of matting, and empty biscuit tins. Any group of Samoans engaged in group dancing will employ several of these rhythm instruments producing a total effect of very complex rhythmic patterns, against the background of which dancing and singing are performed. Consequently, from childhood the Samoan is accustomed to highly varied and rapid systems of rhythmic beats similar to that found in radio transmission. So proficient do the Samoans become as radio operators that on the Naval circuits between Samoa and Hawaii, which are in use to this day, it was customary to employ Samoans at the Hawaiian end because of the difficulty in obtaining any other kind of personnel who could receive messages sent from Samoa, so great was the rapidity of the Samoan operators in Pago.

Since nearly everything in Samoa is done rhythmically, it is not at all surprising that the Samoan radio operators are among the finest transmitters of C.W. messages in the world.

The first point corrects what might seem to be an undue reflection on what Levine, ironically to be sure, styled the "burden of sin" among the young Samoans (p. 260). The second point may merit more investigation among other peoples to determine if, indeed, there may be some relationship between these aptitudes and the cultural attunements. The ex-Governor's surmise may, at any rate, help in the quest for the "significant nugget of information" which the author hoped "could be successfully teased out" (p. 262). In any event, the original article is an excellent addendum to our literature on Samoans, and the addenda here may also prove to be of value both to the author and to others interested in Samoans, both before and after they "come of age."

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Human Engineering: An Outmoded Term

There are many engineers who strenuously object to the fact that some individuals are now calling themselves "human engineers" when, in fact, they do not have any professional engineering training. After many years of effort to establish and maintain professional standards as to who can be called an engineer and exactly what constitutes engineering, there is legitimate concern over the promiscuous use of such titles as human engineer, engineering psychologist, human engineering associate, human engineering psychologist, and human factors engineer. These job titles imply that the individual concerned is an engineer or does engineering work. This is important because some states have certification, licensing, and legal restrictions as to who may be called an engineer and how the term engineering should be used in commercial practice.

It shall be unlawful for any person to practice or to offer to practice professional engineering . . . in this state or to use the title engineer . . . or any other title . . . in such a manner as to tend to convey the impression that such a person is practicing professional engineering . . . or is a professional engineer . . . unless such a person is duly licensed under the provisions of this article. (Statutory Requirements, State of New York)

To maintain close cooperation and harmonious working relationships with such legally accredited engineers, all those now engaged in human engineering activities should respect these efforts to maintain the professional standards which serve to retain and enhance the status of engineers. Therefore, the use of the term engineer or engineering by those not professionally trained in the engineering sciences should be discouraged.

One recent editorial, "Taking Human Engineering Away From Us Humans" (*Research & Engineering*, November 1956), pointedly asked if anyone has ever heard of an "inhuman engineer." This emphasizes that the use of the term human engineering is not meaningful and descriptive but may even strike some as intrinsically ridiculous at first encounter. There are also a variety of other names applied to this general occupational area: for example, biomechanics, aviation psychology, biotechnology, psychotechnology, and applied experimental psychology. Except for minor points of emphasis, these names all refer to the same type of work. Something should be done about this source of confusion by selecting a universally acceptable label for these activities.

For these reasons, the following nomenclature is proposed. The title *Human Factors Engineer* should be reserved for those graduates of accredited engineering schools who specialize in the human factors area. The Human Factors Engineer is concerned primarily with the application, feasibility, and implementation of known human engineering principles to engineering situations requiring such services.

Since most engineers can not keep up with the wealth of new technical information in this area nor spend the time interpreting the semantics or jargon of the many scientific disciplines involved, they should get expert consultation and advice from a Human Factors Consultant who is primarily interested in the transitional zone between the basic research sciences and the application of "human engineering" principles. The term Human Factors Research Specialist could be used for those primarily involved in research activities. These

generic terms can then be amplified in the following manner: Human Factors Research Specialist-Physiologist, or Human Factors Consultant-Anthropologist. The field itself should be called Human Factors Engineering because such a name properly connotes the study of human factors related to engineering design, serves as a generic base for the associated job titles, avoids the negative aspects of other terms, and seems acceptable to those associated with "human engineering" activities.

GEORGE A. PETERS

JOSEPH L. SEMINARA

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On Plutarch's *Lives*

During the past year I have twice introduced Plutarch as required reading in a course on the psychology of personality. To the best of my knowledge this has not been done elsewhere before as a regular practice. I have found this such a satisfying pedagogic device for a number of reasons that I should like to pass on my experiences with this innovation. It has been my practice to begin the semester with the reading of two or three of Plutarch's "Lives," then use them as a point of departure to discuss modern personality theory and characterology.

Perhaps, first, I should comment on Plutarch himself. I think one may safely say that there is no finer example of naturalistic characterology from classic civilization than that contained in his *Lives*. I doubt also if our own civilization can produce anything of comparable quality until the eighteenth century. Plutarch lived in the first century A.D. at a moment in classical civilization when eclecticism in philosophy permitted the fusion of the best of classical wisdom together with flashes of oriental insight from Jewish and other sources. Probably he remains most deeply committed to Platonism, though the marks of Aristotelianism and of Stoicism may be readily discerned.

Plutarch avows as his purpose the description of human character, not the writing of history, and this saves him from much sterile historiography. At the beginning of his life of Alexander he declares:

It must be borne in mind that my design is not to write histories, but lives. And the most glorious exploits do not always furnish us with the clearest discoveries of virtue or vice in man; sometimes as a matter of less moment, an expression or a jest, informs us better of their characters and inclinations, than the most famous sieges, the greatest armaments, or the bloodiest battles whatsoever. Therefore as portrait-painters are more exact in the lines and features of the face, in which the character is seen, than in the other parts of the body, so I must be allowed to give my more particular attention to the marks and indications of the souls of men, and while I endeavour by these to portray

PROPOSED NOMENCLATURE FOR HUMAN FACTORS ENGINEERING

Proposed Title	Typical Activities	Related Areas or Job Titles
Human Factors Engineering	The field of activities wherein special emphasis is placed upon determining the optimum mode of interaction between man and the machine systems of which he is a part.	Human Engineering Ergonomics Engineering Psychology Biomechanics Psychotechnology Applied Experimental Psychology Biotechnology Aviation Psychology
Human Factors Engineer	A professionally trained engineer with special human factors training and/or experience.	Mechanical Engineer Industrial Engineer Electronics Engineer Electrical Engineer Chemical Engineer Aeronautical Engineer
Human Factors Consultant	A professionally trained scientist, not an engineer, who is primarily engaged in consulting activities relating to the applied aspects of human factors engineering.	Physiologist Physician Anthropologist Sociologist Physicist Mathematical Statistician Biophysicist Psychologist Experimental Physiological Systems Analysis or Industrial
Human Factors Research Specialist	A research scientist concerned primarily with experimental design and accumulation of basic research data relating to the field of human factors engineering.	Any of the above occupational specialties

their lives, may be free to leave more weighty matters and great battles to be treated of by others.

If Plutarch sought to hold up a mirror to reflect human vices and virtues, still his moral didacticism does not corrupt his honesty. He can ascribe both base and noble motives to the same person, both folly and wisdom, while seeking to capture the essentials of their character. Nor is he uncritical of his sources, reverencing none, yet attending to all, as he seeks to attain a faithful and naturalistic delineation of personality.

Now the advantages of introducing readings from the *Lives* into a course in personality are several, as I see them. First, I believe he presents a sort of standard of excellence in the descriptive delineation of character. This may be used as a challenge to those who believe sensitivity and profundity in the analysis of character began only with modern psychology. One can, in effect, point to this author of eighteen hundred years ago and ask how much better we can now capture the structure of a human individual than he was able to do. What can modern psychology discern that he did not discern, how better convey the structure of the individual in faithful description?

Second, this procedure presents an unusually fine opportunity to discuss the problem of cultural relativity in human conduct and motives. Thus, at times the reader must be impressed with the exoticness of classical institutions and mores, at other times with the seeming "universality" of the described behavior. Material offered for class discussion on these points is abundant and provocative.

Third, much of the information presented by Plutarch in his *Lives* offers rich and tempting material for modern dynamic interpretation. In this respect they invite the student to proceed beyond Plutarch's descriptive genius to modern conceptualizations. I have found the "Lives" of Alexander and Caesar particularly valuable in this connection in view of certain parallels in their position within their respective family constellations. Again, the "Life" of Alcibiades is a fascinating study in the psychopathic personality, revealing a striking combination of great charm, facility, and amorality. The "Life" of Cato offers yet a fourth inviting psychodynamic study with his obstinate Puritanism and inflexible resolution.

Finally, I think there is didactic merit in reviewing, in courses on personality, characters who have attained significant human accomplishments. Too often, it seems to me, such courses concentrate in the ineffectual, the patently neurotic, or the unintelligent. Plutarch's *Lives* presents men of impressive human proportions (they were so selected). Moreover, the study of these character sketches may do much to invite respect for the accomplishments of classical civilization.

ROBERT H. KNAPP
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A Solution to the Mental Health Problem?

In a recent article (*Amer. Psychologist*, 1957, 12, 57-70) the authors make the statement "but there *must* be other solutions to the mental health problem." At our state supported adult outpatient clinic, we find ourselves thinking more and more that there are solutions to the mental health problem other than increasing the number of psychologists, psychiatrists, and social workers. Some partial answer may be found in making part of the preventive and curative team those who are already in a position to foster the psychological health of others. Of this "resource group" those that immediately come to mind are ministers, physicians, and teachers. Possibly there are others. E.g., it may be that labor union counselors and lawyers are in a position to make some contribution.

We have modified the operation of our clinic to make an approach to the problem consistent with this thinking. Members of the resource group that come to the clinic for therapy are assigned to the more experienced therapists. In addition, we have a rather open policy of providing free supervision to any minister, physician, or school teacher who has received some training and who has defined his job in such a way as to include interview therapy. We do this by listening to tape recorded interviews on a weekly basis with the "therapist." The third and possibly most significant method of implementing our philosophy is still exploratory.

In September 1955, four ministers from a small nearby town and a psychiatrist and a psychologist from our clinic started meeting for one afternoon a week with very loosely formulated goals. The course of these meetings ran somewhat as follows:

At first the participants ran into the same difficulty as the builders of the Tower of Babel but with the added complication that the goal was not so concrete as a "tower with its top in the heavens." It was finally accepted by the members of the group that there was a difference in their attitudes toward the mental health problem and that it would always be thus. This was about six months later, and the original psychologist and two of the ministers left the group and a second psychologist entered. The two remaining ministers started bringing in both notes and recordings of interviews for supervision. In spite of the prior experiences of these two ministers, the supervisors took nothing for granted and dealt with everything in the material consistent with the orientation "how to best help the patient." This slowly changed to therapist oriented supervision in which one of the ministers worked through his dual role as a therapist and a minister. This was a kind of "aha" experience in which he redefined his job. It was somewhere along here that there was a breakdown of professional identification and that leaderless group therapy seemed to be taking place. Again the content changed and such topics as ethics, philosophy of education, the role of the ministers in education and mental hygiene, etc. were being discussed. The group members realized that they

liked each other. Toward the end of the first year the ministers began experimenting with starting groups both of parishioners and of other ministers. It was at this point that they became aware of their resistance to taking on this responsibility and, further, that they became most cognizant of one main continuity of the meetings: no one, no matter how expert, can tell you what to do or how to do it. The meetings continue on a once-a-month basis mainly because the four members enjoy the company of each other. The psychologist during these meetings worked through a negative stereotype of ministers and feels a strong kinship with them because of the commonality of problems they are trying to solve. The psychiatrist in this period was able to make explicit his philosophy of mental hygiene and crystallized his own religious views. In addition to participating in the group meetings at the clinic and in other small groups of colleagues, the ministers continue as therapists in some individual and group therapy with the quite probable result that they will further redefine their ministerial duties.

In September, 1956, three interested physicians sat down with two psychiatrists from the clinic and have been meeting once a week for an afternoon. These meetings have been more structured from the beginning than the ministers' group, and the course has been somewhat as follows:

Each physician sat in with a social worker while he did a one-hour screening interview. Some of these were taped, all were discussed in the meeting. After several months, the physician started to do screening interviews taped and with the social worker present. These were also discussed in the group, which now included the social worker, and suggestions given in order to increase their competence in uncovering the patient's problem. At present, these physicians are engaging in interview therapy in their offices, and the supervision involves discussion of both techniques of interviewing and patient-therapist interaction. The goals have never been formulated but they seem to be working toward having the physicians become increasingly competent in: (a) diag-

nostic screening interviews in order to suggest the best treatment possibility, and (b) utilizing their modified interview therapy with the patients they continue to treat themselves. It would seem that a more widespread use of this kind of training for physicians already in practice would be more easily established than modifying the attitudes of physicians at the source, that is in the medical school. For one thing the physician who has been in practice three or four years has felt the lack of his ability in handling emotional problems in his office and might be more willing to follow up his sneaking suspicions that many of his patients have other than organic problems. Further, since the established physician is more likely to stay in a community than the newly graduated MD after such training, it would be easier to raise funds for such a training program from the community itself.

Two other psychologists on the staff have each been involved with a group of school teachers, not as the expert consultant but mainly as a participating discussant. The groups explore the problems the teachers are having with the pupils and with each other. It is not clear in what direction they may go, but one group appears to be heading toward group therapy.

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Drops in Degrees

My attention was attracted to the data in Table 1 of Recktenwald's comment (*Amer. Psychologist*, 1957, 12, 229-230) citing the "drop in undergraduate degrees from 1950 to 1954." I believe that these data can best be interpreted, not in an absolute sense as they are given in that table, but in the context of the total number of degrees granted in the various years. This is especially important for these data, since the total number of undergraduate degrees granted has declined markedly

TABLE 1
TOTAL NUMBER AND NUMBER IN PSYCHOLOGY OF BACHELORS, MASTERS, AND
DOCTORS DEGREES AWARDED FROM 1949 TO 1956
(Data from recent U. S. Office of Education publications)

Year	Bachelors Degrees			Masters Degrees			Doctors Degrees		
	Psychology	Total	%	Psychology	Total	%	Psychology	Total	%
1949	8,205	366,698	2.24	1,455	50,763	2.87	201	5,050	3.98
1950	9,582	433,734	2.21	1,316	58,219	2.26	283	6,633	4.27
1951	7,819	384,352	2.03	1,645	65,132	2.53	425	7,338	5.79
1952	6,622	331,924	2.00	1,406	63,587	2.21	540	7,683	7.03
1953	5,946	304,857	1.95	1,161	61,023	1.90	583	8,309	7.02
1954	5,758	292,880	1.97	1,254	56,823	2.21	619	8,996	6.88
1955	5,532	287,401	1.92	1,293	58,204	2.22	688	8,840	7.78
1956	5,665	311,298	1.82	969	59,370	1.63	632	8,815	7.17
Total	55,129	2,713,144	2.03	10,499	473,121	2.21	3,971	61,664	6.44

TABLE 2
NUMBER AND PROJECTED NUMBER OF PSYCHOLOGY DEGREES BY YEARS

Year	Number of Bachelors Degrees	Year	Number of Masters Degrees	% of Prior Year Bachelors Degrees	Year	Number of Doctors Degrees	% Doctors Degrees of Masters Degrees Three Years Ago
1949	8,205	1950	1,316	16.0	1953	583	44.3
1950	9,582	1951	1,645	17.2	1954	619	37.6
1951	7,819	1952	1,406	18.0	1955	688	48.9
1952	6,622	1953	1,161	17.5	1956	632	54.4
1953	5,946	1954	1,254	21.1	1957	563*	45.3*
1954	5,758	1955	1,293	22.5	1958	585*	45.3*
1955	5,532	1956	969	17.5	1959	438*	45.3*
1956	5,665	1957	1,042*	18.4*	1960	472*	45.3*

* Projected.

since 1950, somewhat paralleling the decline in the number of persons in the college-attending age group.

In Table 1, the previous data have been supplemented with the total number of the various levels of degrees granted (as well as with additional data on the number of degrees in psychology for the years 1954-55 and 1955-56 published by the U. S. Office of Education). The relationship, expressed in percentages, between the number of psychology degrees and the total number of degrees granted was computed. It is true that there has been a reduction in the *total* number of degrees in psychology at the bachelor level: 8,205 in 1949 to 5,665 in 1956—31.0%. However, it becomes apparent that the reduction in the percentage of degrees in psychology to the total number of degrees granted during the same period is not nearly so sharp: 2.2% in 1949 to 1.8% in 1956—a decline of only 18.8%. The reduction is enough to warrant consideration. It might be the result of competition of other areas of study to attract students to major in a particular field. Perhaps increased emphasis and use of material on careers in psychology and encouragement of good students to become psychology majors would reverse the trend of the past several years.

However, a situation of even greater concern may be revealed by these data. This concern relates to the number of *graduate* degrees in psychology. Especially alarming is the relatively small number of master's degrees awarded in the school year ending in 1956: 969,

as compared to the minimum number in any of the previous seven years of 1,161 in 1953.

To facilitate comparison, Table 2 was constructed to show the number of masters and doctors degrees by years and the relationship of these numbers to the number of the previous level degrees in the year in which one might expect the prior degree to have been granted. (This would seem to be about one year between the bachelor and master, and about three years between the master and doctor. The percentages, of course, can readily be determined on other yearly intervals.) Tenuous as they may be, based on the relatively few years for which data are available under anything approximating stable conditions, projections were made of the number of doctorates in psychology to be expected through 1960.

These projections indicate that there is likely to be a "sellers' market" for several years to come for new PhD's in psychology. In view of Wolfe's estimate in 1953 (in *America's Resources of Specialized Talent*, p. 77) that the demand is increasing for PhD's in psychology and observations of recruitment activities recently, these figures would seem to indicate that every encouragement could be given to qualified students to continue on to the PhD.

JOHN WILLIAM ASHER
Washington, D. C.

Psychology in Action

PSYCHOLOGICAL RESEARCH IN NONLITERATE SOCIETIES¹

LEONARD W. DOOB

Yale University

THERE are indications that within the next decade an increasing number of psychologists will be doing research among nonliterate peoples throughout the world. The concern of the United Nations, of particular countries like the United States, and of foundations for "underdeveloped" areas leads to a demand for concrete information of all kinds about the inhabitants therein. Social scientists, as suggested by the theme of a seminar of the Social Science Research Council in 1954, are interested in "narrowing the gap between field studies and laboratory experiments in social psychology." It may be wise, therefore, to examine some of the problems that confront psychologists when they step outside their own culture. Certainly the problems are not qualitatively different from those which exist in this society, but the quantitative differences loom sufficiently large to make them noteworthy if not formidable.

Why conduct research among nonliterate peoples? There are practical questions to answer which are or should be raised by colonial or extra-societal administrators, the distributors of foreign aid or information, the managers of newly established industries, the people's own leaders, and eventually—as the trend toward self-government accelerates—the people themselves. The answers will come in large part from the use of instruments like surveys and aptitude tests.

The investigator can provide himself with personal reasons for embarking upon an expedition into another civilization. The very contrast between life here and there may shock, inspire, and stimulate him as no colony of animals or college students ever will. At the very least he can capture a collection of anecdotes which will interest and broaden students in his classes.

The respectable, theoretical reason for working among nonliterate peoples is close at hand: hypotheses about human behavior are supposed to be tested cross-culturally. Such a justification slips off the tongue or the typewriter very easily in these "interdisciplinary" times, but in fact requires closer scrutiny. One way to make the test is to assemble data from many cultures,

and these almost always turn out to have been gathered by nonpsychologists and consequently lack the details or the precision to validate the theory. In the future, psychologists must either go out and collect the materials or else instruct anthropologists and others to do so. And they probably can become more efficient instructors if they themselves have actually endured field work.

The individual psychologist during a single trip can usually operate, however, only within a single nonliterate society. How can he then test a theory cross-culturally? Before he replies, he really ought to be convinced that the hypothesis to be tested has been sufficiently exercised within the various subcultures of our own society or otherwise it may not be worth the trouble to go abroad. For the time being, it may be anticipated that psychologists will select research sites on a fortuitous basis: so few psychological studies of other societies exist that a careful investigation almost anywhere is likely to contribute something to some systematic theory. Eventually, when more data have been collected, a society will be chosen as a research site on the basis of a unique attribute which it possesses for testing the theory. After theories have been tested in a number of different societies, the question concerning the representative character of those societies in the known spectrum of human groups will arise. The task of carrying on research to fill out the sample of societies may prove no more glamorous than the replication of a colleague's experiment.

The relation between the psychologist and his subjects at the research site can not be thought of in only intellectual terms. The moment the psychologist leaves the United States, he strikes a nest of mundane, practical problems. He must obtain official permission to carry on research. He must find a place in which to live. Usually he must buy or rent a car and obtain a license to drive. He must locate a physician, maybe a dentist. He must learn when it is necessary to boil water and whether he may eat uncooked vegetables. He may drown in those details or waste weeks of his single year if he cannot call on experienced people for assistance. The cost of what in East Africa is called "safari equipment" (which ranges from a tent to a dish pan) may be beyond his research budget—can he then borrow or rent some of these items?

¹ This paper has been adapted from a discussion which occurred at a colloquium of the Department of Psychology, Northwestern University; the writer has been moved to examine the subject after a 15-month trip to Africa which was financed by the Carnegie Corporation of New York.

Should the psychologist live among the people he is investigating; or should he live with people from his own culture and, if this is possible, commute to the community of his informants? It may be most uncomfortable to settle down in the bush; but it may be necessary to do so because no other accommodations are available, because only in this way can people's respect be won, because observations of behavior can thus be made, etc. It may be most desirable to camp out, but the intrusion of a stranger or a corps of strangers into a community may distort its existence. Obviously, the choice of residence should not rest on one's inclination to lead or not to lead a Boy Scout existence: if feasible, live wherever the research itself is best facilitated.

Usually the investigator's own morale must be carefully nurtured in the field. He is exposed to the normal frustrations of protracted research. In addition, he is likely to suffer from exotic living conditions; from informants whose sense of time and idea of punctuality differ from his own; from uncertainty concerning the outcome of the research since field conditions may prevent even the most casual tabulation of the incoming data; from anxiety about imaginary and, in some instances, real perils; and from the need to behave as an exemplary investigator throughout the day and night if he is living in the same community as his informants and has few opportunities to relax among his peers.

Many if not most types of psychological research require direct and intimate contact between investigator and subject. The most obvious barrier to such rapport in a nonliterate society is its language. It is all very well for the linguist to emphasize the peculiarities of each language and for the psychologist himself to reflect upon the nuances within his own language, but the learning of a language outside the western tradition is indeed a traumatic task. Anyone of normal intelligence can force himself to distinguish more than six grammatical genders or to acquire the skill of detecting differences in tones or clicks, but such learning takes time, generally more time than the psychologist has at his disposal or is motivated to spend. The sad and truly unsatisfactory alternative is to learn only enough phrases to survive and to demonstrate goodwill and then to depend upon an interpreter. The interpreter, moreover, opens another Pandora's box: his ability to give a literal and not a polished translation, his reputation in the society, his salary, his companionability, etc.

Since anthropologists are usually interested in modal tendencies within a society, their informants do not have to be systematically selected at all times—the man's report is eventually checked by direct observation or by reports from his contemporaries. In contrast, the psychologist seeks individual differences; and, therefore, since his data are to be thrown into statistical form, he must obtain a more or less representative sample. In "underdeveloped" areas, adequate information concern-

ing the attributes of the universe are likely to be lacking or unreliable. A probability sample can be obtained (although locating a particular hut and meeting a callback criterion, for example, may be most painful under tropical conditions), but then the relation of the subsample to the entire universe may remain unknown. It is tempting to be seduced by atypical easy-to-get informants.

Before beginning work, the psychologist must adopt a role which explains his presence in the society. If he is working in a colonial area and if his skin is white, he is almost certain to be identified with the colonial, governmental, or "settler" population; for most purposes and in most places, here is quite a handicap to overcome. Nonliterate peoples have their own social and political structures; it is almost always necessary, consequently, to obtain permission from their leaders before particular informants are approached. The explanation in terms of history, custom, or my-people-are-interested-in-your-people may or may not prove adequate when personal or projective questions are part of the survey or when some experimental procedure is employed. The discipline of psychology is not likely to be known, and the word itself most certainly can not be easily or accurately translated. It is probable, too, that people want something in return for their cooperation. It may be difficult for a psychologist—especially one who is testing an abstract theory—to prove to them that any advance in human knowledge ultimately benefits mankind and hence that they should sacrifice their time to this noble ideal. Many informants may be more satisfied by a package of tea or cigarettes or by a wage payment. Direct compensation, however, runs counter to the experience of most anthropologists and should be evaluated very carefully in the light of the local situation.

The design of an instrument presents some difficulties within a closely knit community since the activities of a stranger are likely to be viewed with interest or perhaps suspicion. For purposes of illustration, let it be assumed that the psychologist seeks to obtain a fairly extensive sample of each informant's views and actions by means of tests and questions. Pretesting is obviously essential, but news of the pretest as well as of the interview itself may be quickly communicated to future informants who therefore become somewhat contaminated. It may be desirable to keep anxiety evoking questions until the end of the schedule so that they have no adverse effects upon other sections; but the final impression may be remembered by the informant who then discourages others from cooperating. Uniformity in question wording may be most necessary, but such uniformity may prove impractical when the society contains people living under "primitive" conditions as well as graduates of European universities. The schedule may be too long to administer at one session, but many

informants in inaccessible places may be so difficult to reach that, when they finally are tracked down, a single session becomes mandatory. After the research has begun, some questions may prove unsuitable because, for example, all the responses are the same; a change in the question would mean losing all the informants who have been seen and who now, under these field conditions, can not be recaptured.

Progress may be anticipated in the use of experimentation among nonliterate peoples since this method has followed psychologists into almost every field which they have elected to invade. Even now the method may be employed. There are captive audiences in schools. Local leaders can sometimes be persuaded to assemble people in groups; it is quite feasible, in this writer's opinion, to administer a questionnaire among nonliterates, provided they can hold a pencil and make an X with it. A manipulatable variable can be built into an interview and informants then assigned at random to experimental and control groups. Before modern communications diffuse more widely, it is even conceivable that one can use an entire community as an experimental group and a similar one as a control. The psychologist's ingenuity in devising situations for experimentation will be inhibited somewhat—and often justifiably so—by the ethical scruple of the administrator and the anthropologist against interfering in the life of a society.

Anthropologists know that not all graduate students are destined to become proficient field workers. Among those who temperamentally and intellectually are suited for field work, there is a further division. Some operate more effectively when they are, as it were, dropped by parachute into a nonliterate society and are left to fend for themselves. There are others who need or who benefit greatly from advice during field work, and these are likely to prosper if they can be attached to some academic institution within a reasonable distance of the group being investigated. Psychologists must learn to make similar discriminations. In addition, it will be necessary to locate investigators who can cooperate with the teams of social scientists which foundations frequently encourage or which field work sometimes requires.

Many of the research problems can be at least partially solved by a closer liaison between psychology and anthropology. This can take two forms. In the first place, the psychologist can select a site because an anthropologist is already there and because that anthropologist is willing to help him. What help can the anthropologist give? He can provide practical advice concerning equipment. Since he knows the society, he can recommend an interpreter and give significant clues to ways of obtaining a sample. He can introduce the psychologist to the leaders of the group and often to the people themselves and thus generously try to transfer

some of his laboriously cultivated prestige. He can be taught to rate informants in a systematic way. On the basis of his knowledge of the culture, he can offer suggestions regarding the type of material to be included in any schedule; in fact, in some instances it is quite possible to use the anthropologist as the informant in the pretest.

Such a relation is ideal for the psychologist who professionally is not interested in the nonliterate society as such but only in a sample of its people. Other things being equal, it should be possible for psychologists to carry on research among nonliterate peoples on this parasitic hit-and-run basis: jump in after the translator has been hired, after the sample has been selected, and after the anthropologist has prepared the way, and then leave to go home or to work with another group. It is clear, however, that the anthropologist is not always willing to function as the psychologist's mentor or valet. He quite properly wants something in return, and the psychologist must offer more than pointers on the administration of a Rorschach.

The second kind of liaison between the two disciplines is more difficult for the psychologist: let him become an anthropologist or, at least, let him learn to collect anthropological materials. Field work then becomes a much more ambitious and time-consuming undertaking. Perhaps the psychologist must actually learn the local language. Obviously he must live in the community to win people's confidence and respect. He is not irritated when informants are late for appointments because, while waiting around, he makes anthropological observations or inquiries. The psychological material which he gathers is in a much more meaningful context. This second alternative must not be lightly dismissed; it ought to be considered very seriously, for example, in planning graduate training.

Whether the investigator is a psychologist accompanied by an anthropologist, a psychologist acting also like an anthropologist, or an anthropologist acting also like a psychologist, he eventually must evaluate the materials which he has collected. If he has been lucky or skillful, he will have found differences between the society he has examined and some society like ours or differences between groups within the nonliterate society itself—and these differences, let it be hoped, are significant at the .001 level. At this point, if he himself has not experimentally manipulated the variable, he may have to guard against using interpretations based upon research in western society or he will have to find the explanation within the nonliterate society itself.

People pick problems for sane or for strange reasons. Should psychologists do research among nonliterate peoples? Without doubt, the experience enriches the investigator, and there is presumptive evidence that it can also enrich the craft.

Psychology in the News

Psychology Gets In . . .

Science is big news these days, with great emphasis on the physical sciences. But several commentators (not to mention several committees of APA) have moved to advance psychology and the behavioral sciences as fields worthy of increased support in terms of national security and welfare.

Thomas Stokes, syndicated columnist, devoted an entire column to the subject in November. "So we make bigger and better missiles, fill the air with them, and acquire almost pinpoint accuracy. So what? So then?" he began.

Before it is too late, why don't we stop a minute and figure? . . .

Instead of concentrating entirely on the sort of scientists who deal in missiles, rockets, earth satellites, nuclear weapons and such, why don't we call in also another sort of scientist? These are the scientists in the field of human behavior, sometimes called psychologists or psychiatrists, who try to understand human beings, and why they act as they do, and see if they can't help us to keep from destroying ourselves.

Then let us call in another sort of scientist. These are our politicians, sometimes glorified—but not by politicians themselves—as statesmen. For politics is a proud calling, and they are proud of it. They are valuable practitioners in our society and have kept us out of lots of trouble, as well as got us into a lot of trouble.

Now, instead of concentrating on which of us can produce the biggest missiles, and glorify the scientists who make them, why don't we also bring together with them these other types of scientists, these who can counsel about human behavior and those who try to help people to govern ourselves?

Stokes concluded: "It is not at all certain that we can save ourselves. That's a good assumption with which to begin."

Forecast: Storms of 1984 Followed by Fair in 2057 . . .

Much space in the public press was recently given to a group of seven scientists giving their opinions on life one hundred years from now. Greatest play was given to predictions from the physical scientists of the seven, such as Harrison Brown's thought of oceans providing power through hydrogen fusion and James Bonner's conjecture that "Man will be vegetarian . . . we will eat steaks made from vege-

table protein, flavored with tempting, tasty synthetics, and made chewy with plastic matrix."

To AP readers the most startling conjectures, however, would probably be those from psychologist John Weir of California Tech who thinks about emotions and impulses being controlled by chemistry: "Mental disease, emotional illness and maladjustment will be eliminated." Surely there will be days when the chemicals in the brain and a particularly succulent plastic sukiyaki will combine to produce just a little heartburn and consequently the tiniest trace of guilt or anxiety?

Of Spacious Living . . .

Donald N. Michael of Stamford, Connecticut, was one of several psychologists whose papers at the New York convention discussed the psychological and social changes which would be brought about by the advent of the "space age." Michael reiterated the thesis he first set forth in this journal (June, 1957) that this new era would afford students of social change a unique opportunity to examine the information and attitudes people possessed, before and after historic events. His thesis was that we could anticipate that the first steps into space would be such a great historic event.

It turned out, of course, that some could anticipate and some could not. (Each month, two copies of the AP go to the Biblioteka Akademii and the Gosudarstvennaja Biblioteka in Moscow.)

Michael is now conducting a study in cooperation with Margaret Mead, David Reisman, Gordon Allport, Harold Lasswell, E. A. Shils, and Evon Vogt. One feature of the study is a questionnaire printed in the *Saturday Review* of December 14, 1957 designed to test what its readers know and think about space. Sample questions: "Did you read or hear much about space before Sputnik went up?" "Would you like to become one of the first people to explore space?" "Why?" The introduction states:

The questions on the next two pages comprise a new type of scientific experiment in which behavioral scientists enlist the participation of other scientists and non-scientists to bring about a better understanding of the process of social and cultural change. Because of their unique position in the intelligence pattern of America, readers of the *Satur-*

day Review are invited to become the first magazine audience to give a word picture of the state of mind in the market place of ideas "before Man in Space."

It was Harold Pepinsky, at the same convention, who conjectured that the first man on the moon might be a woman—and a graduate of a technical school—and very likely a Russian.

Looking now at the prescience and persistence of psychologists in this matter, one is tempted to think: yes, the first person to land in a space ship on the moon may be a Russian. But, when he or she steps out on the surface of the moon, he will find that what appeared to be large slabs of volcanic rock are actually questionnaires and test batteries—fired by rocket from earth by moon-struck psychologists.

How does it feel to be on the moon? American psychologists will be at least the second to know and the first to tell, you may be sure of that.

To See A "C" . . .

In a magazine called *See* appears this season's article on "psycho-quacks." *See* is a magazine for men, in which the words are far more pale than the pictures. *See* is not to be confused with *Look*, *Peek*, *Man*, *Male*, *Leer*, *Peer*, *Sneer*, or *Snoop*.¹ The article in *See* makes liberal mention, generally correct, of the standards of the American Psychological Association. As for the rest of it, this is *not* the article in which the reporter goes to a diploma

¹Not all these journals are apt to be in your library. For one thing, the last four magazine titles are titles which we just made up.

mill and gets a psychology degree. No, this is the article in which a reporter goes to a quack and tells him his troubles.

On our grading system, this piece isn't the worst or best of its long line: hence our title.

For Better Psychologists . . .

Malvina Lindsay, columnist in the *Washington Post*, wrote under the heading, "Science Alone No Answer to Sputnik." She said that most outcries over the Russian achievements "end with demands for rush orders of inventors and technologists."

She asks:

But what about some better administrators, intelligence experts, legislators, psychologists?

She says:

It was not so much lack of knowledge as lack of administration of it that has caused this Nation to appear to lag in the conquest of outer space. It was not so much lack of knowledge of technology as failure to apply knowledge of psychology, especially at high governmental levels, that caused us to let the Russians score a political and propaganda victory with a space satellite.

She predicted:

When Congress convenes there will probably be demands for all sorts of "crash" programs to turn out scientists en masse . . . many educators are beginning to fear the country will go on a binge of technical education, train hordes of specialists, and neglect the broad general education that is needed to develop not only good administrators and politicians but also good scientists.

—M. AMRINE

Psychology in the States

Of Workshopmanship

Without wishing to "con" anyone into accepting the hypothesis, we would suggest that the folks who attended the convention's state association workshops fell into four categories: contributors, converts, conventioners, and conscripts. Many offered fruitful suggestions, most showed a new-found enthusiasm, some came along for the ride, a few had apparently been "drafted" to attend. All had in common the desire to exchange experiences.

Workshop on Public Information. Working their way through a matinee and an evening performance, the public information workshopers hammered out agreement on various issues. They were these.

1. If the matter of public information was once an afterthought, it now needs to be regarded as a pretty central idea. With state associations roaming the market place, few issues remain remote. Citizens may still wonder whether all psychologists have couches. But they are becoming curious, too, about what is meant by "conditioning" Laika and whether psychologists are really behind "subliminal advertising."

2. Public relations is hardly a repertoire of techniques, still less a bag of tricks. It might better be viewed as the third dimension of scientific and professional life.

3. In effect, APA has not one public information office or a few score public information chairmen, but 16,000 practitioners of public relations—for good or ill. One major indiscretion by one psychologist, given national publicity, could have consequences for the profession which are not lived down in a fortnight.

4. While we wrestle with the problem of getting the public to see us as other than "headshrinkers"—and one might note the currently popular night club ballad—we might pay similar attention to the matter of promoting greater amity (or at least more active communication) among psychology's eighteen tribes. Internal public relations would seem as important as, or perhaps basic to, external public relations.

5. Public information programs are best perceived in terms of their objectives, and the latter are of various orders. They may be relatively short-term and ad hoc in character—as when the

central purpose is to promote the passage of appropriate legislation. They may be long-term—as in the ongoing responsibility for weaving scientific endeavor into the fabric of societal concerns.

6. Overall, the intent is hardly that of sniping at critics, certainly not that of "selling" psychology. Hopefully, the workshopers felt, psychology's public information activities will be geared to making psychology's many-faceted facilities known, getting them appropriately offered to and sought out by the community's leaders and its citizens.

Operation Deepfreeze. Resolved that the convention workshop ideas should not be left to perish in the Statler, the Public Relations Committee of the Michigan Psychological Association has scheduled its own series of public information workshops for the coming year. According to present plans, there will take place, at a half-dozen centers throughout the state, a series of one-day workshops. Each will be attended by approximately twenty psychologists invited from the particular region and will be chaired by a member of MPA's Public Relations Committee. A real effort will be made to select participants so as to represent all fields of psychology. The purpose will be to sample the current opinion regarding public information problems, to collate the kinds of public information activities in which psychologists are engaging, and to map a meaningful program of public information on which psychologists can agree.

The first meeting of the series took place in the Detroit area on December 7, included approximately twenty psychologists invited from a variety of specialties and work settings, was chaired by MPA's Public Relations Committee, and assisted by Central Office personnel. Admittedly a pilot project, this initial meeting was intended to assess the feasibility of such state-wide workshops. Hence, other state associations will be interested in the nature of this first meeting.

If willingness to brave the elements is any measure of motivation, the ego involvement of the participants could hardly be questioned. Rolling toward its meeting place—the "summer" home of one of the group—the caravan of some half-dozen cars fought its way through a near-blizzard. The four-hour meeting took place amid visions of being snowed in for the weekend and ended on the co-

operative note of helping to extricate each other's cars from the foot of snow which had meanwhile fallen.

In the interim, nevertheless, it sounded as though the following kinds of things had taken place—and these were not “snow-jobs”! A round robin inventory of public information activities in which the respective members of the group were engaged revealed a real diversity of efforts. As individuals, the members were handling TV series, working in conjunction with the ministry, concerned with appropriate provision for gifted children, acting as judges at science fairs, and serving in a host of other capacities. As a group, however, the state association itself had as yet embarked on relatively few public information projects aside from those involved in the passage of legislation.

Of higher priority than coming up with a repertoire of projects seemed the need for exchanging perceptions of various aspects of the public information problem. Basic to the discussion were such issues as the following: (a) the need to explore further the feelings of all breeds of psychologists with respect to public information activities; (b) the desirability of gaining consensus on the kind of image of psychology and psychologists which is conveyed; (c) the need for conveying the knowledge that psychology is concerned not only with mental health but with behavior generally, not only with pathology but with potential and creativity as well; (d) the dangers implicit in suggesting that we can make contributions which exceed our available knowledge or are beyond the resources of our numbers.

As planned, the scheduled series of workshops in various quarters of the state would use such questions as points of departure and advance the association's thinking some steps further. The ultimate goal would be an MPA public information program which represents the best informed planning of the membership as a whole.

* * *

Legislative Reference Service. At its meeting in New York in September 1957, the APA Council of Representatives voted approval of the following recommendation from the Committee on the Relation of Psychology to Psychiatry:

The APA subscribe to a standard legislative reference service for a two-year period at a cost of approximately \$1,500 per year, and that before the end of that period the Committee on Relations of Psychology to Psychiatry review and report on the value of this service.

The contract with Commerce Clearing House, Inc. has been made. Beginning in January 1958, there will be sent to APA Central Office reports of all legislation originating in state legislatures during 1958 and 1959 having to do with the

... regulation of the practice of psychology, basic science laws, medical practice acts, and any of the fields, including psychiatry, professing to assist the mentally or emotionally disturbed.

The file of reports will be maintained by Jane Hildreth, digests of actions will be sent to all state psychological associations, and news from a specific state will be shared immediately with the state concerned. 1958 is a “lean” year, legislatively speaking, and it may not be possible really to assess the value of the service until 1959. In any event, the service cannot be a substitute for the very useful information that comes from psychologists themselves. Central Office will need considerable feedback and guidance in what we hope will prove a successful experiment.

Subliminal Perception. In view of the concern expressed in many quarters concerning “subliminal advertising,” state associations will be interested in the following. At its recent meeting, the newly created Board of Professional Affairs passed the following motion:

Recognising the serious social implications of the use of subliminal perception as an influence process—if the claims made therefor are scientifically demonstrable—BPA requests preparation for early publication in an appropriate APA journal of a summary and review of the available research data, and plans at its next meeting a careful consideration of the value questions involved in its application.

Such a summary and review are already under way. In addition, this motion by BPA has been called to the attention of the Board of Directors by mail ballot with a recommendation that its appropriate public release be approved.

* * *

New Hampshire Psychological Association. High light of the fall meeting at Durham, New Hampshire was an address by Erich Fromm. An evening session was devoted to the presentation of papers in the field of Industrial Psychology.

Maine Psychological Association. The Board of Examiners of Psychologists of Maine is currently constituted as follows: J. P. Scott (Chairman), David L. Russell (Secretary-Treasurer), and Lilian H. Brush.

—W. J. McKEACHIE

—E. L. HOCH

Psychological Notes and News

The American Board of Examiners in Professional Psychology, Inc. administered on November 15, 1957 its ninth written examination to 106 candidates at 46 examining centers. ABEPP wishes to express its appreciation to the following Diplomates who served as proctors:

Robert M. Allen
Roy N. Anderson
Henry Borow
Clara Burri
Blake Crider
Louise Cureton
Thomas D. Cutsforth
Paul Fay
Paul E. Fields
John V. Gilmore
W. D. Glenn
Leo Goldman
Leonard D. Goodstein
Nathan Greenbaum
Milton E. Hahn
Thomas W. Harrell
Colin J. Herrick
Ernest A. Hirsch
A. Pemberton Johnson
Walter F. Johnson
Marshall R. Jones
Wallace V. Lockwood

John W. Love
Abraham S. Luchins
M. Bernardina McAndrew
John G. Martire
Stanley S. Marzolf
W. Mason Mathews
Bruce V. Moore
A. Gordon Nelson
Harriet O'Shea
Ernst Prelinger
Margaret Quayle
T. W. Richards
W. K. Rigby
Charlyne T. Seymour
Edward J. Shoben
William U. Snyder
Felman B. Sorsby
George Speer
Emily Stogdill
William F. Thomas
Brian Tomlinson
Gertha Williams

In Germany and in Puerto Rico, examinations were administered by Johannes Cremerius and Mercedes Rodrigo-Bellido.

Julia Badér Leonard, of the Mental Health Clinic Association of Holyoke, Chicopee & Northampton Area, Inc., represented the APA at the inauguration of Richard G. Gettell as President of Mount Holyoke College on November 9, 1957.

Paul I. Clifford, of Atlanta University, represented the APA at the inauguration of S. Walter Martin as President of Emory University on November 15, 1957.

F. M. Gregg, of Lynnhaven, Virginia, died in 1957.

George W. Boguslavsky has been appointed a Visiting Professor of Psychology and Ernst Z. Rothkopf an Assistant Professor of Psychology at Rensselaer Polytechnic Institute.

Charles W. Bray has resigned his position as Technical Director of the Air Force Personnel and Training Research Center, Texas.

J. Howard Bryant is now Director of the Research Services Division of the United States Naval Personnel Research Field Activity, Washington, D. C.

Samuel L. Buker has joined the staff of the National Institute of Mental Health and been assigned to duty as Mental Health Consultant in Psychology in the Kansas City Regional Office. He was formerly Chief Clinical Psychologist at Montana State Hospital.

Nathaniel Herman Eisen, Assistant Professor at the University of Illinois, has also been appointed a consultant in clinical psychology to the Neuropsychiatric Service, 3345th USAF Hospital, Chanute Air Force Base, Rantoul, Illinois.

James N. Farr and Edwin M. Glasscock have formed Farr and Glasscock Associates, Psychological Consultants to Management, in New York.

Sheldon L. Freud, formerly at the USAF School of Aviation Medicine, has been reassigned as Clinical Psychologist to the Neuropsychiatric Service, 1100th USAF Hospital, Bolling Air Force Base, Washington, D. C.

Herbert G. Gerjuoy, formerly at the University of Indiana, has joined the Psychology Department at the University of Toledo as an Associate Professor.

M. D. Havron is Research Director and J. E. McGrath, W. S. Vaughan, Jr., and J. A. Whittenburg are members of the research staff of Human Sciences Research, Inc., a recently formed military and industrial contract research organization in Virginia.

Harry J. Jerison has been appointed Director of the Engineering Psychology Research Project and Associate Professor of Psychology at Antioch College, Yellow Springs, Ohio.

Theodore C. Kahn, formerly at the 2750th USAF Hospital, has been assigned Chief Clinical Psychologist at the 7100th USAF Hospital, Wiesbaden, Germany.

In memory of **George Lawton**, the Board of Directors of the National Psychological Association for Psychoanalysis has unanimously voted to appropriate \$1,500 for a George Lawton Memorial Collection to initiate an NPAP Memorial Library. *Members of APA are invited to make a contribution.* All books will be the books basic to a psychoanalytic library. Please make your check payable to NPAP, placing on the back of the check the words "George Lawton Memorial Collection," and mail to: NPAP; 66 Fifth Avenue; New York 11, New York.

Harold J. Leavitt has resigned from the University of Chicago School of Business to accept a professorship in the Psychology Department and Graduate School of Industrial Administration at Carnegie Institute of Technology, Pittsburgh.

Morton Levitt has been appointed Assistant Dean of the College of Medicine, Wayne State University.

The following have joined the faculty of the Department of Psychology at New York University:

Leo Hurvich, formerly at Eastman Kodak Company, has become Chairman of the undergraduate program at Washington Square College and Program Coordinator for graduate training in the general experimental area; **Dorothea Jameson Hurvich**, formerly at Eastman Kodak Company, has been appointed Research Scientist; **Philip Zlatchin** has become Program Coordinator for doctoral training in counseling psychology; **Anne Roe**, formerly Coordinator of field training of VA doctoral candidates in New York City, has been appointed Adjunct Professor of Psychology and will devote full time to research on the origins of interests related to occupational choice; **Raymond Katzell**, formerly at Richardson, Bellows, Henry and Company, has become Program Coordinator for doctoral training in industrial psychology.

The Department of Psychology of the North Shore Neuropsychiatric Center of Roslyn, New York, has recently added to its staff the following psychologists: **Gordon F. Derner**, Consultant; **Jerome L. Singer**, Consultant in Research; and **Marvin Daniels**, **Sol Froshnider**, **David Kirschner**, **Alice B. Segal**, and **Stanley Teitel**.

Harry O'Bear, formerly at the Devereux Schools, is now Director of Training at the Fort Wayne State School for Mentally Retarded, Indiana.

Robert Perloff has recently been appointed Executive Associate of Science Research Associates, Chicago.

Ralph H. Markus, **Theodore Kunin**, and **Joseph S. Herrington** have formed Psychological Consultants to Industry in Pittsburgh.

Robert M. W. Travers has been appointed Chairman of the Department of Educational Psychology at the University of Utah.

Members of the Department of Psychology at the University of North Carolina who are participating in the teaching program in the Department of Psychiatry are **E. Earl Baughman**, Coordinator of the Clinical Psychological Training Program; **George S. Welsh**, Associate Professor; and **June E. Chance**, Assistant Professor. At the North Carolina Memorial Hospital of the University of North Carolina, **Ralph L. Dunlap** is Chief of Child Service and **Gordon E. Rader** is Chief of Adult Out-patient Service.

The following personnel changes have occurred in *Psychology Services*, Department of Medicine and Surgery, **Veterans Administration**:

Fred Y. Billingslea has transferred from the Tomah VA Hospital to the position of Chief, Psychology Service, VA Center, Jackson, Mississippi.

Libby Blek has resigned from the Brockton VA Hospital to accept a position at the Child Guidance Clinic, Jacksonville, Florida.

Rayman W. Bortner has transferred from the Augusta VA Hospital to the position of Chief, Clinical Psychology, VA Hospital, Fayetteville, North Carolina.

Leon B. Cohen has transferred from the Topeka VA Hospital to the staff of the Psychology Service, VA Hospital, Brockton, Massachusetts.

H. Max Cutler has been appointed to the clinical psychology staff, VA Hospital, Salt Lake City, Utah.

Stephen H. Davol, a graduate of the VA Training Program, University of Rochester, has been appointed to the staff of the VA Center, Bath, New York.

Merle E. Day, a graduate of the VA Training Program, has been appointed to the vocational counseling staff, VA Hospital, Northport, New York.

George W. Fairweather has transferred from the Perry Point VA Hospital to the psychology staff, Palo Alto, California.

Leonard D. Feinberg, a graduate of the VA Training Program, University of Rochester, has been appointed to the staff of the Psychology Service, VA Hospital, Montrose, New York.

Stanley H. Fisher, a graduate of the VA Training Program, has been appointed to the vocational counseling staff, VA Hospital, Northport, New York.

Vernon E. Fisher has been appointed to the staff of the Psychology Service, VA Hospital, Marion, Indiana.

Robert L. Gibson has resigned from the staff of the VA Hospital, Marion, Indiana.

Robert L. Gunn, a graduate of the VA Training Program, has been appointed to the vocational counseling staff, VA Hospital, Dearborn, Michigan.

Fred H. Herring has transferred from Fort Lyon VA Hospital to the clinical psychology staff, VA Mental Hygiene Clinic, Denver, Colorado.

Marvin Hersko has resigned from the position of Clinical Psychologist, VA Mental Hygiene Clinic, Miami, Florida.

Durand F. Jacobs, has transferred from the Marion VA Hospital to the position of Chief, Psychology Service, VA Hospital, Tomah, Wisconsin.

O. Irving Jacobsen has been appointed to the vocational counseling staff, VA Hospital, Wood, Wisconsin.

Kenneth C. Jost has resigned from the position of Chief Clinical Psychologist, VA Hospital, Danville, Illinois.

George G. Katz, a postdoctoral trainee in the VA Training Program, Washington University, has been appointed to the clinical psychology staff, VA Hospital, North Little Rock, Arkansas.

C. James Klett has transferred from the Northampton VA Hospital to the Central Neuropsychiatric Research Laboratory, VA Hospital, Perry Point, Maryland.

Joe L. Lawson has resigned from the position of Clinical Psychologist, VA Hospital, Alexandria, Louisiana.

Murray J. Lonstein has been appointed Chief, Psychology Service, VA Hospital, Leech Farm Road, Pittsburgh, Pennsylvania.

Vernon K. Lum has resigned from the position of Clinical Psychologist, VA Hospital, Saginaw, Michigan.

James E. Mabry has resigned from the Fort Douglas Station VA Hospital to accept an appointment as Assistant Professor, Department of Psychology, Oregon State College, Corvallis, Oregon.

John J. Mallet has resigned from the Roanoke VA Hospital to accept a position at the Koff Psychiatric Clinic, Atlanta, Georgia.

Howard E. Mitchell has resigned from the Philadelphia VA Mental Hygiene Clinic to accept a position as Chief Psychologist, Child Guidance Clinic, Lankenau Hospital.

William Nelson has resigned from the vocational counseling staff, VA Hospital, Houston, Texas.

Bertram H. Schneider has transferred from the Leech Farm Road VA Hospital to the staff of the Psychology Service, VA Hospital, Brockton, Massachusetts.

Irving M. Shelsky, a graduate of the VA Training Program, has been appointed to the vocational counseling staff, VA Hospital, Northport, New York.

Fred E. Spaner has transferred from the Trenton VA Area Medical Office to the position of Chief, Psychology Service, VA Hospital, Downey, Illinois.

Mimi Spielberg has transferred from the Albany VA Hospital Mental Hygiene Clinic to the VA Mental Hygiene Clinic, Washington, D. C.

N. Norton Springer has transferred from the Perry Point Neuropsychiatric Research Laboratory to the position of Area Chief Psychologist, VA Area Medical Office, Trenton, New Jersey.

James W. Taylor has resigned from the Denver VA Mental Hygiene Clinic to accept a position as Chief Psychologist, Department of Health, State of Utah.

F. Fagan Thompson, a graduate of the VA Training Program, has been appointed to the vocational counseling staff, VA Hospital, North Little Rock, Arkansas.

John W. Whitmyre has transferred from the Fort Douglas Station VA Hospital to the clinical psychology staff, VA Hospital, Coatesville, Pennsylvania.

Fred Wissner has been appointed to the staff of the Psychology Service, VA Hospital, Montrose, New York.

J. Wilson Young has resigned from the position of Clinical Psychologist, VA Hospital, Downey, Illinois.

Richard W. Wallen will direct the recently formed Managerial Training Division of the Personnel Research and Development Corporation, Cleveland.

The College of Physicians and Surgeons of Columbia University at the Columbia-Presbyterian Medical Center announces an intern and postdoctoral training program in medical psychology supported by the United States Public Health Service and the New York State Department of Mental Hygiene. The clinical facilities are those of the Presbyterian Hospital and the New York State Psychiatric Institute. William N. Thetford will direct this program. Information may be obtained by writing to: Executive Officer, Department of Psychiatry; 722 West 168 Street; New York 32, New York; Attn: Director, Training Program in Medical Psychology.

A report of progress has been released by the **Harry M. Cassidy Memorial Research Fund** covering the five years of the fund's operations since its establishment in 1952. The fund is administered from the University of Toronto's School of Social Work. The fund is concerned with increasing knowledge of the social and human problems in modern industrial society. Three types of research awards are offered: the Cassidy Research Visiting Professorship, the Cassidy Research Senior Fellowship, and the Cassidy Research Assistance Grants.

Twenty fellowship awards, each totaling \$300, for specialized study by counselors working with children and adults having cerebral palsy and other physical handicaps are available from the **National Society for Crippled Children and Adults**. The deadline for receiving applications is March 15, 1958. The fellowships cover four weeks of specialized training from June 16 through July

11 at the Institute of Physical Medicine and Rehabilitation at New York University-Bellevue Medical Center. Application blanks may be obtained from: Personnel and Training Service, National Society for Crippled Children and Adults; 11 South La Salle Street; Chicago 3, Illinois.

The Social Science Research Council announces several additions to its programs of Fellowships, Grants, and Other Appointments. The "Supplementary Announcement" describes travel grants for attendance at the 1958 Congress of the International Association of Applied Psychology and three postdoctoral research training institutes to be held next summer: Analysis of Electoral Behavior, the Judicial Process, and Simulation of Cognitive Processes. Copies of the "Annual Announcement" and of the supplement may be obtained from: Social Science Research Council; 230 Park Avenue; New York 17, New York.

The United States Office of Vocational Rehabilitation has granted Southern Illinois University's Rehabilitation Institute \$36,905 to begin a full-scale program of service to the **handicapped**. The grant will enable the institute to combine counseling and therapy for the physically handicapped, establish a college program tailored to the special needs of severely crippled students, and provide actual on-campus work experience for student trainees in the field of rehabilitation.

A new informal journal, called *Political Research: Organization and Design* (edited and published at Princeton, New Jersey), will collect and circulate among its readers the ideas of political and behavioral scientists about researches that might advance man's knowledge of **political behavior**. It is more a free expression of what may be promising inquiries than it is a medium for elaborate designs, research memoranda, or reports of completed work.

Psychologists and educators from throughout the South met in Atlanta, Georgia on November 20 with the Southern Regional Education Board to discuss ways in which psychologists can be trained to be more effective in **public school work**. The regional project is being financed through a two-year grant of \$22,000 made to SREB by the National Institute of Mental Health.

The Society for the Scientific Study of Sex has been organized to foster interdisciplinary exchange in the field of **sexual knowledge**. The aim of SSSS is to bring together scientists working in the biological, medical, anthropological, psychological, sociological, and allied fields who are conducting significant sexual research or whose profession confronts them with sexual problems. For further information concerning SSSS and its activities, write to: Robert Veit Sherwin; 285 Madison Avenue; New York 17, New York.

The Twentieth Century Fund (330 West 42nd Street; New York 18, New York) has announced a research project on "**Time, Work, and Leisure**" under the direction of August Heckscher, Director of the fund.

In the past two and one-half years, the Asia Foundation's special project, **Books For Asian Students**, has sent 600,000 selected books to more than 1,200 universities, colleges, libraries, and civic groups in Asia. These books were donated by 700 university and college groups, publishers, libraries, and individuals in the United States. The great need for books continues as evidenced by increasing requests. *Your contributions of books will be greatly appreciated.* Items in every category at the university and college level, in good condition, published in 1948 or after, and works by standard authors regardless of date can be sent directly to: Books for Asian Students; 21 Drumm Street; San Francisco 11, California. Transportation costs from the donor to San Francisco and thence to Asia will be borne by the foundation for substantial shipments.

A bibliography, oriented as directly as available sources permit to the study of **inductive and deductive behavior** in human thinking, has been prepared by a graduate seminar at the University of Hawaii. The aims of the listing are to identify the literature concerned with inductive and deductive behavior, to focus on possible distinctions between them, and to provide a basis for conducting research to clarify the relations between them. One hundred copies are available to those who write to: Department of Psychology; University of Hawaii; Honolulu 14, Hawaii.

Goodwill Industries of America held its first **Conference for Professional Workers** in Washington, D. C., November 11-13. Psychologists, physical therapists, occupational therapists, physicians, chaplains, social workers, nurses, and staff

coordinators met to discuss rehabilitation activities in Goodwill Industries.

Hadley Cantril has been invited by the Ministry of Education and Scientific Research of the Indian Government to give a series of lectures at the Indian Science Congress Association meeting in Madras, January 6-12.

David Wechsler, Chief Psychologist at Bellevue Psychiatric Hospital, New York, will speak at Springfield State Hospital, Sykesville, Maryland, on

January 10. His topic is "The Clinical Use of the Wechsler Adult Intelligence Scale."

The American Orthopsychiatric Association will hold its thirty-fifth Annual Meeting in New York City on March 6-8. The AOA will be meeting jointly with the American Academy of Child Psychiatry, the American Association of Psychiatric Clinics for Children, and with the Mental Health Section of the American Public Health Association.

TO THOSE WHO SERVED:

The APA expresses its appreciation to those who contributed their time and effort to making the 1957 Annual Convention a successful meeting. As APA must rely heavily on volunteer assistance, it is indeed fortunate that its members readily accept such assignments and execute them with initiative and dispatch. The APA is also grateful to the several hundred VA Trainees and other students who volunteered their much needed services during the course of the convention.

The Board of Directors voted "that a statement listing the appropriate names of those who contributed to the local arrangements be prepared and published in the *American Psychologist*." Thanks are due Joseph E. Barmack, the 1957 Convention Manager, and the members listed here who devoted over 2,000 man-hours of time to their myriad duties in assisting with convention arrangements:

W. T. Bourke
M. M. Bruce
M. Faries
A. Gustav
R. A. Harris
S. J. Hayden
R. A. Katzell
J. F. Lawrence

D. B. Learner
E. M. McGinnies
J. R. Martin
M. J. Meade
R. S. Morrow
A. M. Munger
H. M. Parsons
J. C. Parsons

E. Raskin
C. H. Rush, Jr.
A. A. Schneiders
B. Shuttleworth
I. R. Stuart
G. D. Wiebe
R. J. Williams
C. Winick

Convention Calendar

American Psychological Association: August 28-September 3, 1958; Washington, D. C.

For information, write to:

Roderick H. Bare
American Psychological Association
1333 Sixteenth Street, N.W.
Washington 6, D. C.

Southwestern Psychological Association: April 3-5, 1958; Austin, Texas

For information, write to:

Ruth M. Hubbard
Veterans Administration Hospital
Waco, Texas

Southern Society for Philosophy and Psychology:
April 4-5, 1958; Nashville, Tennessee

For information, write to:

Wilse B. Webb, Secretary
503 Bayshore Drive
Pensacola, Florida

Eastern Psychological Association: April 11-12, 1958;
Philadelphia, Pennsylvania

For information, write to:

Gorham Lane
Department of Psychology
University of Delaware
Newark, Delaware

Western Psychological Association: April 24-26, 1958;
Monterey, California

For information, write to:

Francis H. Palmer
U. S. Army Leadership Human Research Unit
P. O. Box 787
Presidio of Monterey, California

Southeastern Psychological Association: April 27-29, 1958; Atlanta, Georgia

For information, write to:

M. C. Langhorne
Box 2
Emory University, Georgia

Midwestern Psychological Association: May 1-3, 1958;
Detroit, Michigan

For information, write to:

Donald W. Fiske, Secretary-Treasurer
Department of Psychology
University of Chicago
Chicago 37, Illinois

Rocky Mountain Psychological Association: May 8-10, 1958; Santa Fe, New Mexico

For information, write to:

William H. Brown
Department of Psychiatry
University of Utah College of Medicine
156 Westminister Avenue
Salt Lake City 15, Utah

International Association of Applied Psychology:
April 9-14, 1958; Rome, Italy

For information, write to:

Segreteria
XIII Congresso Internazionale di Psicologia Applicata
Istituto Nazionale di Psicologia del C.N.R.
Piazzale delle Scienze 7
Roma, Italia

World Federation for Mental Health: August 24-29, 1958; Vienna, Austria

For information, write to:

Secretary-General
World Federation for Mental Health
19 Manchester Street
London, W.1, England

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Advisory Editors

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